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The OIL and GAS JOURNAL

PRODUCING REFINING MARKETING

Published Every Thursday TULSA, OKLAHOMA, AUGUST 19, 1926 $6.00 a Year

Davis Paul H
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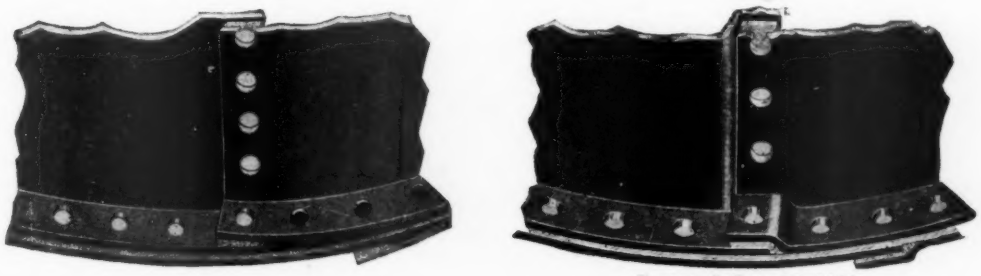

Patented Oct. 21, 1913

MALONEY'S EXCLUSIVE ADVANTAGE

The MALONEY Tank possesses an exclusive advantage in its patented "crimp" at seams and joints. The function of this crimp is illustrated above, at right. It causes the sheets to fit together accurately without calking, where they overlap; making side seams ridged and eliminating bulging.

This feature insures non-leakable seams and joints and promotes tightness throughout. It renders easy and simple the work of erection, eliminating the hammering and battering of sheets to secure a fit. The accurate, firm fit promotes strength and insures freedom from strains.

Other advantages which have contributed towards MALONEY leadership are construction of Keystone Copper Steel, noted for its rust-resisting properties, our method of reinforcing seams with strong steel channels and strips, large cleaning-out plates set flush with bottoms, and the best valve and thief-hatch equipment obtainable. MALONEYS are strictly vapor-tight throughout.

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MALONEY TANK MFG. COMPANY
Tulsa, Okla.
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Sizes: 12 to 3,000 Barrels

Packed in Steel-Bound Crates for Export

MADE OF KEYSTONE COPPER STEEL

"Buck" Type Vacuum Pressure Valves and Vacuum Breakers Furnished

MADE OF KEYSTONE COPPER STEEL

MALONEY (PATENTED BOLTED COPPER-STEEL TANKS)

Advertisers' Index on Page 25 Table of Contents on Page 26

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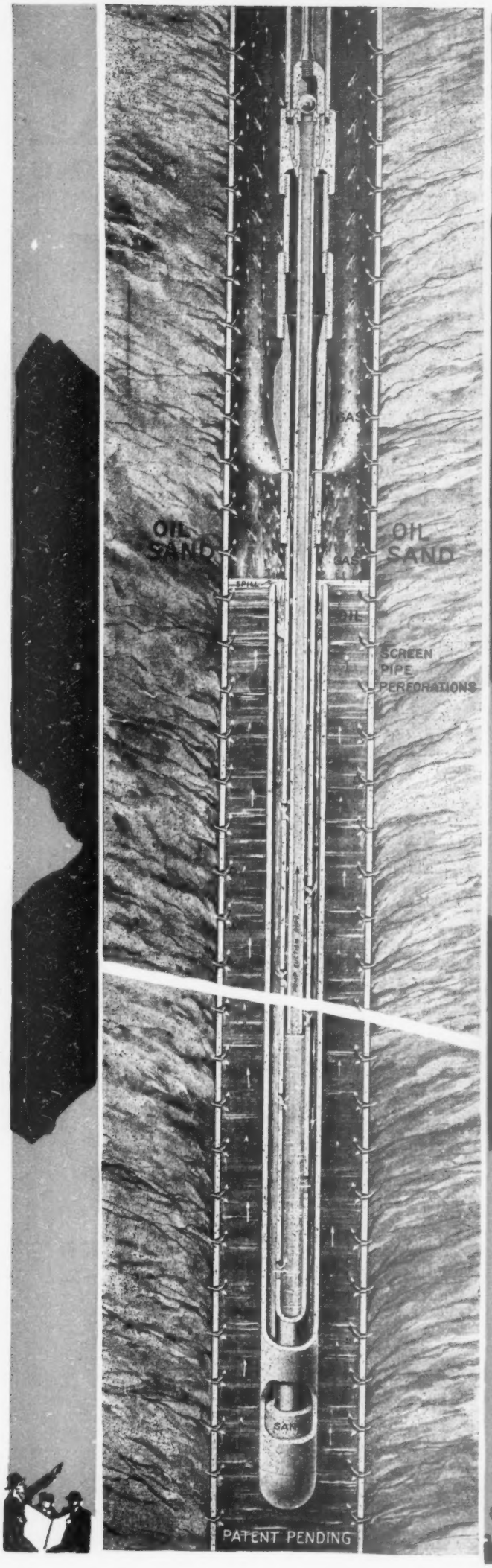

Good News

continues to come in from the oil fields!

Regan Production Booster

making phenomenal records

Increases production in every well where installed

Separates gas and sand from oil

Eliminates obstinate pump troubles

Ask for descriptive literature.

Regan

Forge & Engineering Co.

San Pedro *California*

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227 Mayo Bldg.

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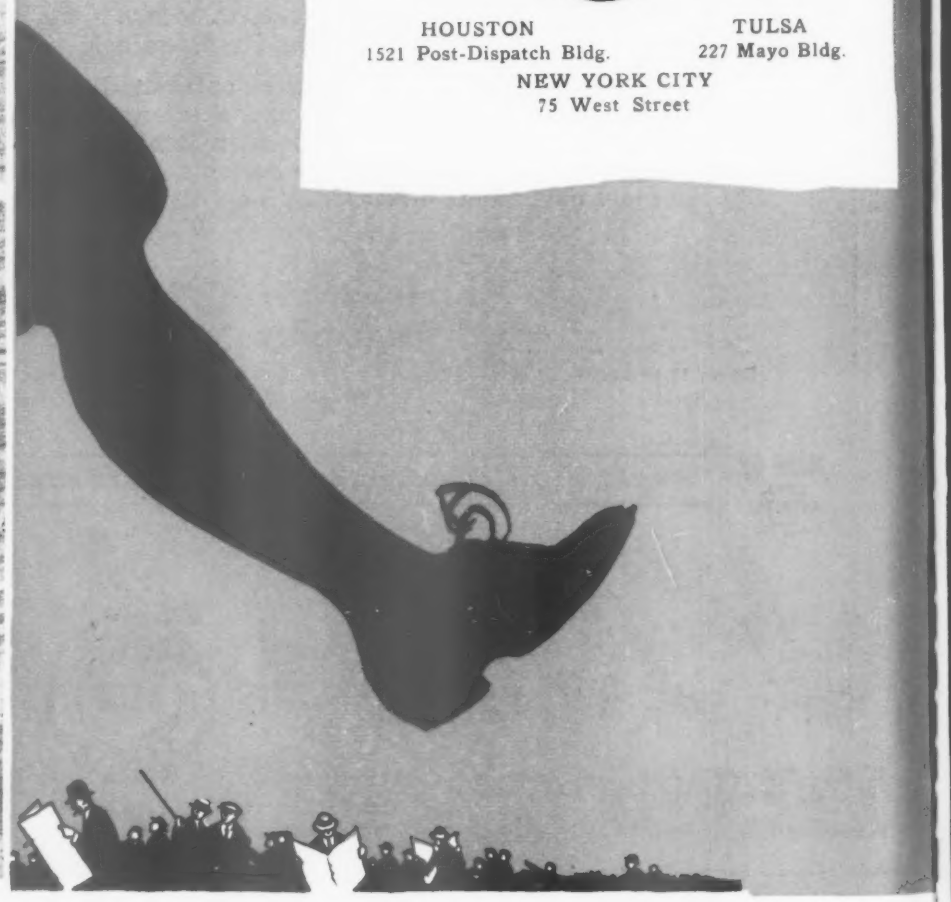
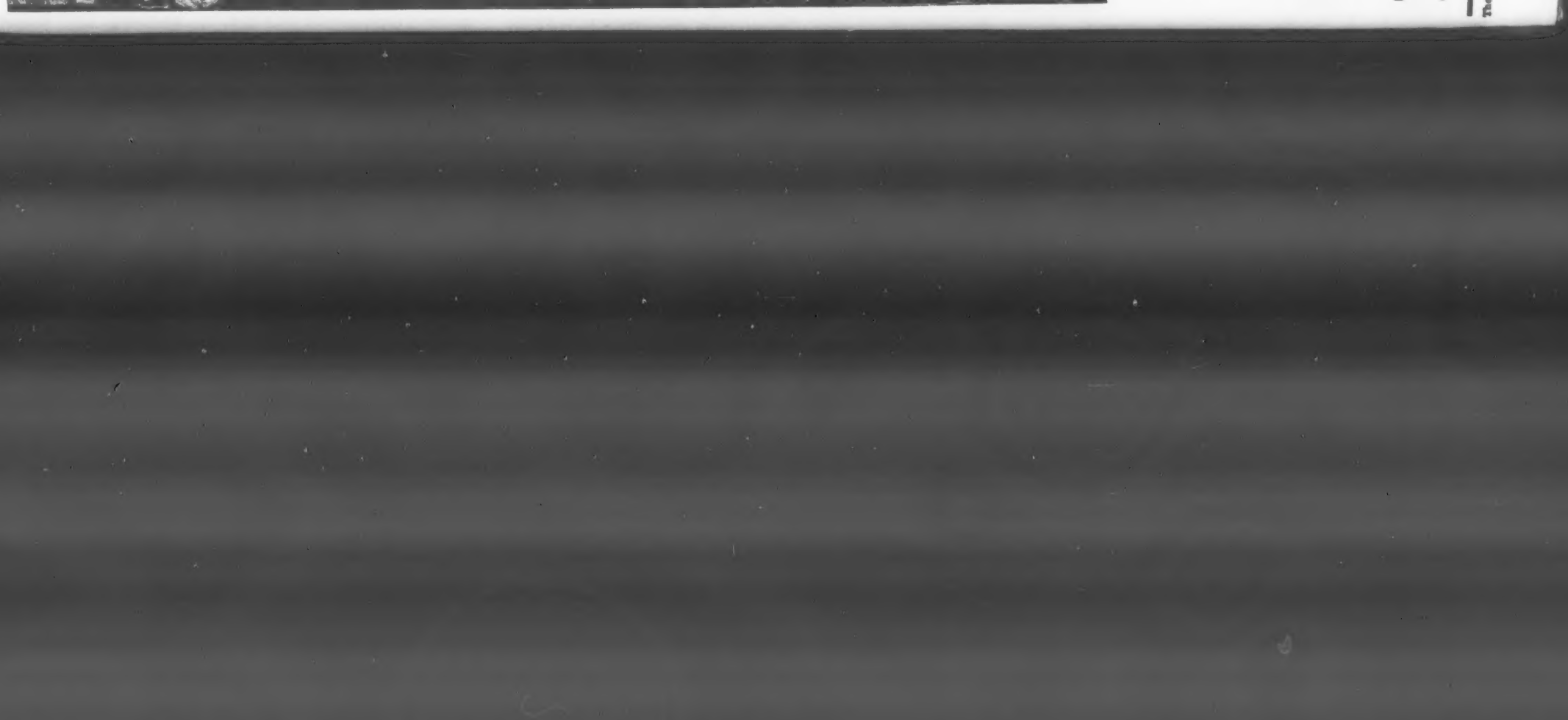
75 West Street





Aug

A National Reserve Acetylene System

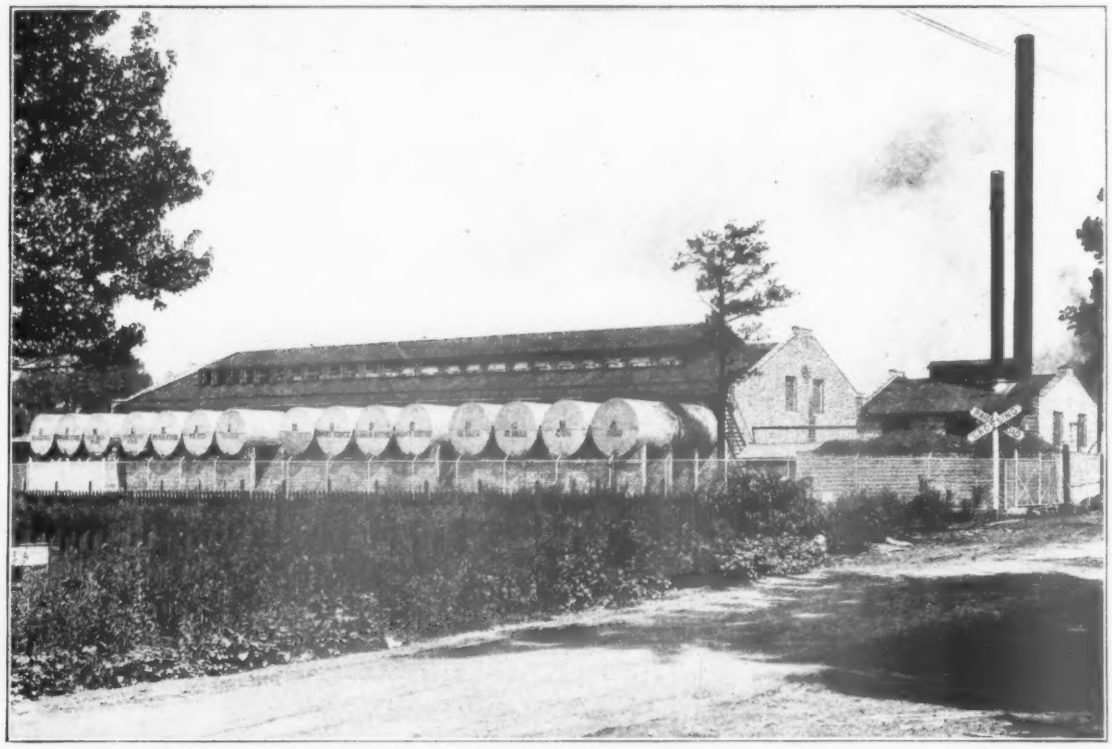
When you buy dissolved acetylene from Prest-O-Lite you do not depend upon a single plant or a single warehouse. The 31 plants and 85 warehouses of Prest-O-Lite give you 116 sources. They guarantee dependable supply.

THE PREST-O-LITE COMPANY, INC.
Oxy-Acetylene Division
General Offices: Carbide and Carbon Bldg., 30 East 42d St., New York
In Canada: Prest-O-Lite Co. of Canada, Limited, Toronto
31 Plants—85 Warehouses
22 District Sales Offices

Prest-O-Lite
DISSOLVED ACETYLENE

The Oil and Gas Journal, issued weekly by The Petroleum Publishing Company, 114-116 West Second Street, Tulsa, Oklahoma. Subscription price $6.00 a year; 15 cents a copy. Entered as second-class mail matter December 15, 1911, at the postoffice at Tulsa, Okla., under the Act of March 3, 1879.

XUM



Battery of Tanks of Wofford Oil Company, Birmingham, Alabama, protected against rust with Eagle Sublimed Blue Lead

Proving the economy of lead paint for protecting all metal surfaces against rust

"HOW *long* will this paint protect the tanks and metal surfaces of my plant against rust, weathering and destructive gas fumes? How much does it cost in the long run? What do painters think about it?" These are questions every plant engineer or superintendent should ask himself about the metal-protecting paint he uses.

Eagle Rust Preventive Paints —either Red Lead or Sublimed Blue Lead—offer lasting economy, most complete rust-prevention and weather-protection. They are members of the distinguished Eagle Lead-in-Oil family, produced by a vast organization of specialists trained in supplying the lead requirements of both individuals and industries.

And lead serves nowhere better than in the economical protection of metal surfaces. Eagle Red Lead and Eagle Sublimed Blue Lead are both ground in pure linseed oil. They grip metal surfaces tenaciously, and their protection is enduring. Good painters like and recommend them.

We will gladly send you interesting information about Eagle Red Lead or Eagle Sublimed Blue Lead—the economical rust preventive paints.

The EAGLE-PICHER LEAD COMPANY • 134 *North La Salle Street* • *Chicago*

EAGLE
RUST PREVENTIVE PAINTS
Red Lead and Sublimed Blue Lead

[PRODUCERS OF LEAD AND ALLIED PRODUCTS]

Sales Offices: CINCINNATI, CLEVELAND, PITTSBURGH, PHILADELPHIA, NEW YORK, MINNEAPOLIS BOSTON, BUFFALO, DETROIT, BALTIMORE, NEW ORLEANS, KANSAS CITY, ST. LOUIS, JOPLIN

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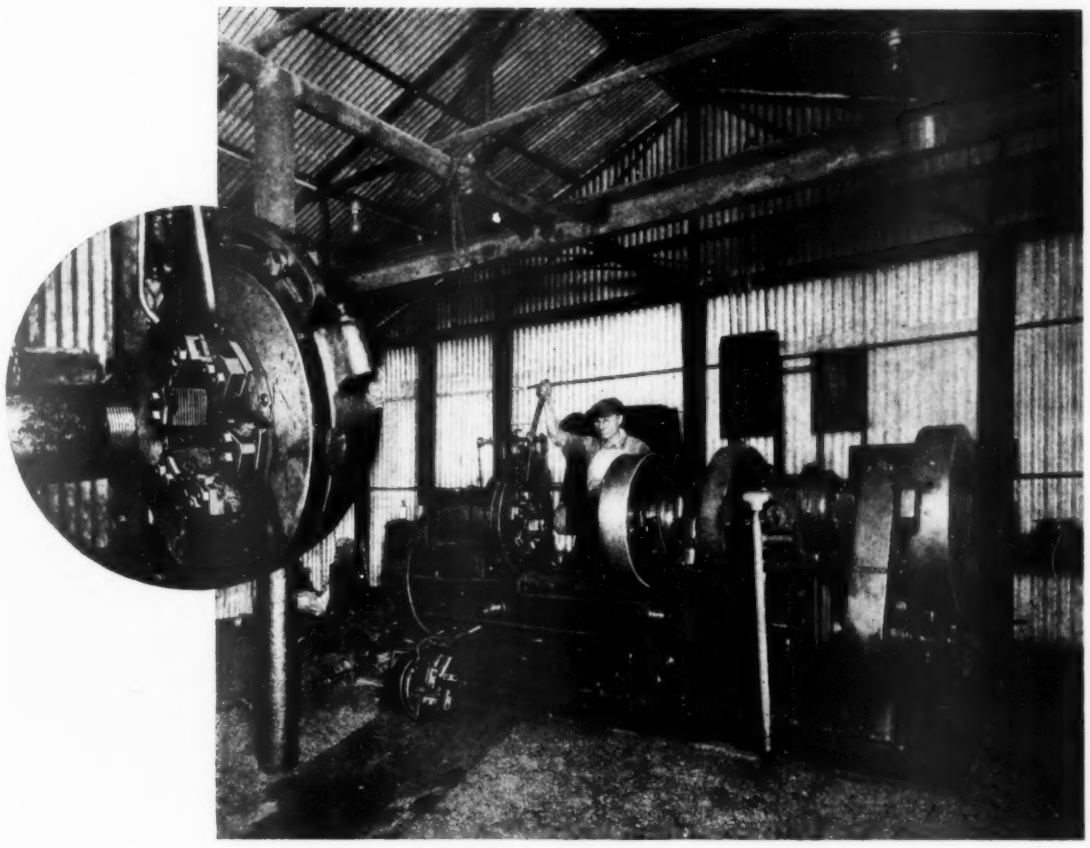

LANDIS TRADE MARK

After all, DEPENDABILITY is the first requisite of any oil field equipment. This is particularly true of pipe machines.

LANDIS TRADE MARK

When drilling is going on, casing must be threaded quickly but above all **good threads** must be cut. Poor quality threads of incorrect taper mean waste of thousands of dollars in time or material.

LANDIS Pipe Threading and Cutting Machines are **dependable.** Good threads of correct taper are produced day in and day out. Better still, LANDIS Pipe Machines are **fast** and the long life LANDIS Chaser insures **cheap** threads.

The New 6" LANDIS Pipe Threading and Cutting Machine shown above was photographed in the shop of Hoffman and Page, Eastland, Texas. They know they have the best machine made and this knowledge comes from experience, the best teacher.

Go to any Oil Field in the United States or throughout the World. An investigation will prove that the LANDIS is used universally and that it is **dependable, fast** and **economical.**

LANDIS MACHINE COMPANY, Inc.

Waynesboro, Penna.

Detroit Office: 5928 Second Blvd.

DOMESTIC AGENTS: Marshall & Huschart Machinery Co., Chicago, Ill.; Marshall & Huschart Machinery Co. of Indiana, Indianapolis, Ind.; Colcord-Wright Machinery & Supply Co., St. Louis, Mo.; R. B. Whitacre & Co., St. Paul, Minn.; Hamilton Machinery Co., Chattanooga, Tenn.; Young & Vann Supply Co., Birmingham, Ala.; Woodward, Wight & Co., New Orleans, La.; Jos. T. Ryerson & Son, Houston, Texas; Hendrie & Bolthoff Mfg. & Supply Co., Denver, Colo.; Salt Lake Hardware Co., Salt Lake City, Utah; Harry M. Euler Co., Portland, Ore.; Hallidie Machy. Co., Seattle, Wash.; Hallidie Co., Spokane, Wash.; Herberts Machinery & Supply Co., San Francisco and Los Angeles, Calif.; R. S. Armstrong & Bro. Co., Atlanta, Ga.

CANADIAN AGENTS: Canadian Fairbanks-Morse Co., Toronto and Montreal.

FOREIGN REPRESENTATIVES: Benson Brothers, Ltd., Sydney; Schuchardt & Schutte, Berlin, Vienna, Prague, Warsaw; R. S. Stokvis & Zonen, Rotterdam, Brussels, Soerabaya; M. Almeida & Cia, Sao Paulo, Rio de Janeiro; Alfred Herberts, Ltd., Coventry, Calcutta, Osaka; Burton Fils, Paris; D. Drury & Company, Johannesburg.

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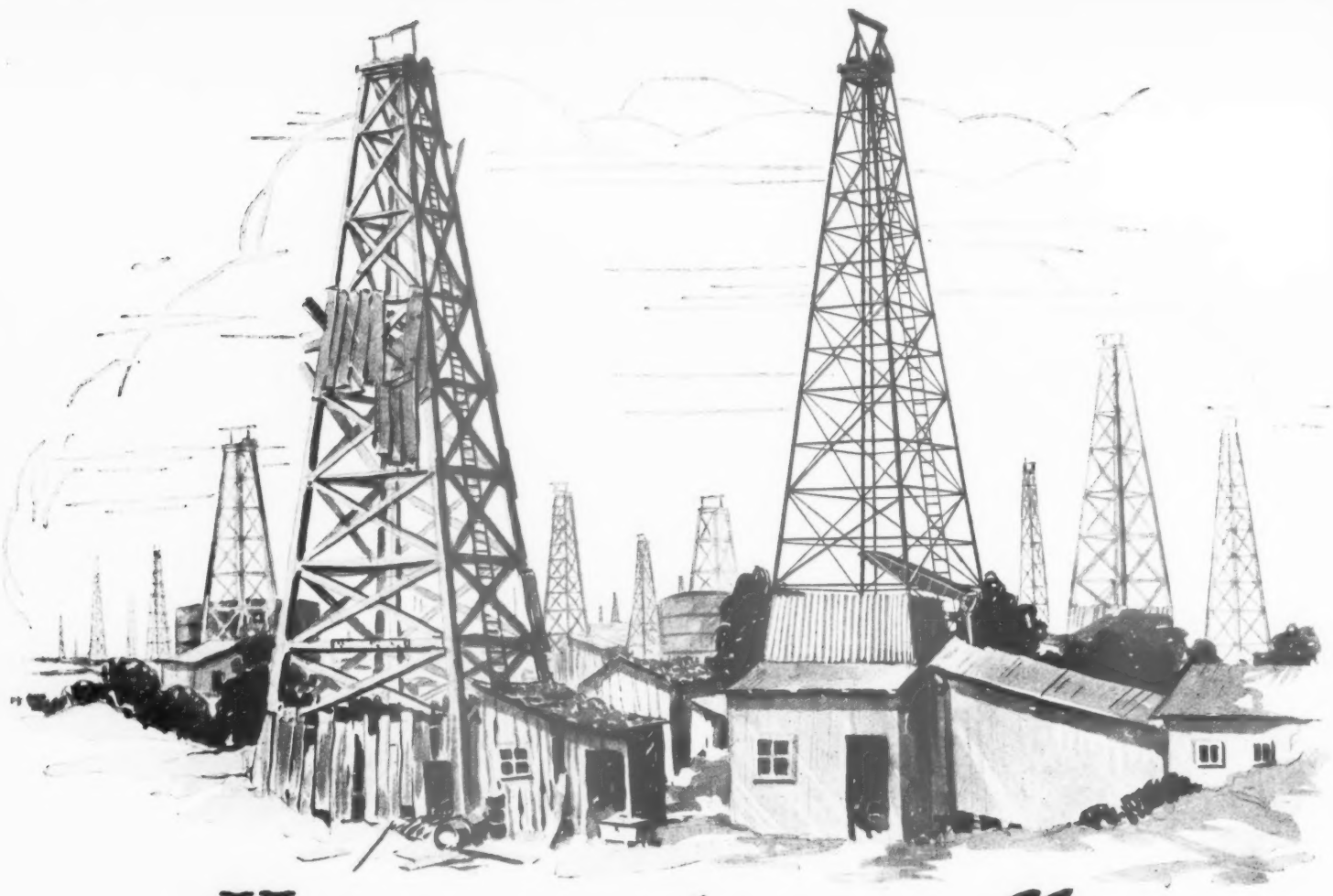


Here are two wells- and two owners

This One-

thinks the oil game is so much of a gamble anyhow that ordinary pipe at the lowest price quoted is the pipe to use. He ought to know after losing his string of tools four times in this particular hole.

This One-

has found out that oil producing is a business—and the further you reduce your hazards the more money you make. He is positive that the pipe which lasts the longest is the cheapest. He ought to know—his tubing and casing are marked "Reading."

READING IRON COMPANY
Reading, Pa.
World's Largest Manufacturers of Genuine Wrought Iron Pipe
OIL WELL SUPPLY COMPANY, Distributors
Inquire at any of their 100 branches

READING PIPE
GENUINE WROUGHT IRON

P.I.W.
STEEL PLATE CONSTRUCTION

P. I. W. Service Is World-Wide

Covering All Types of Light and Heavy Steel Plate *Construction.*

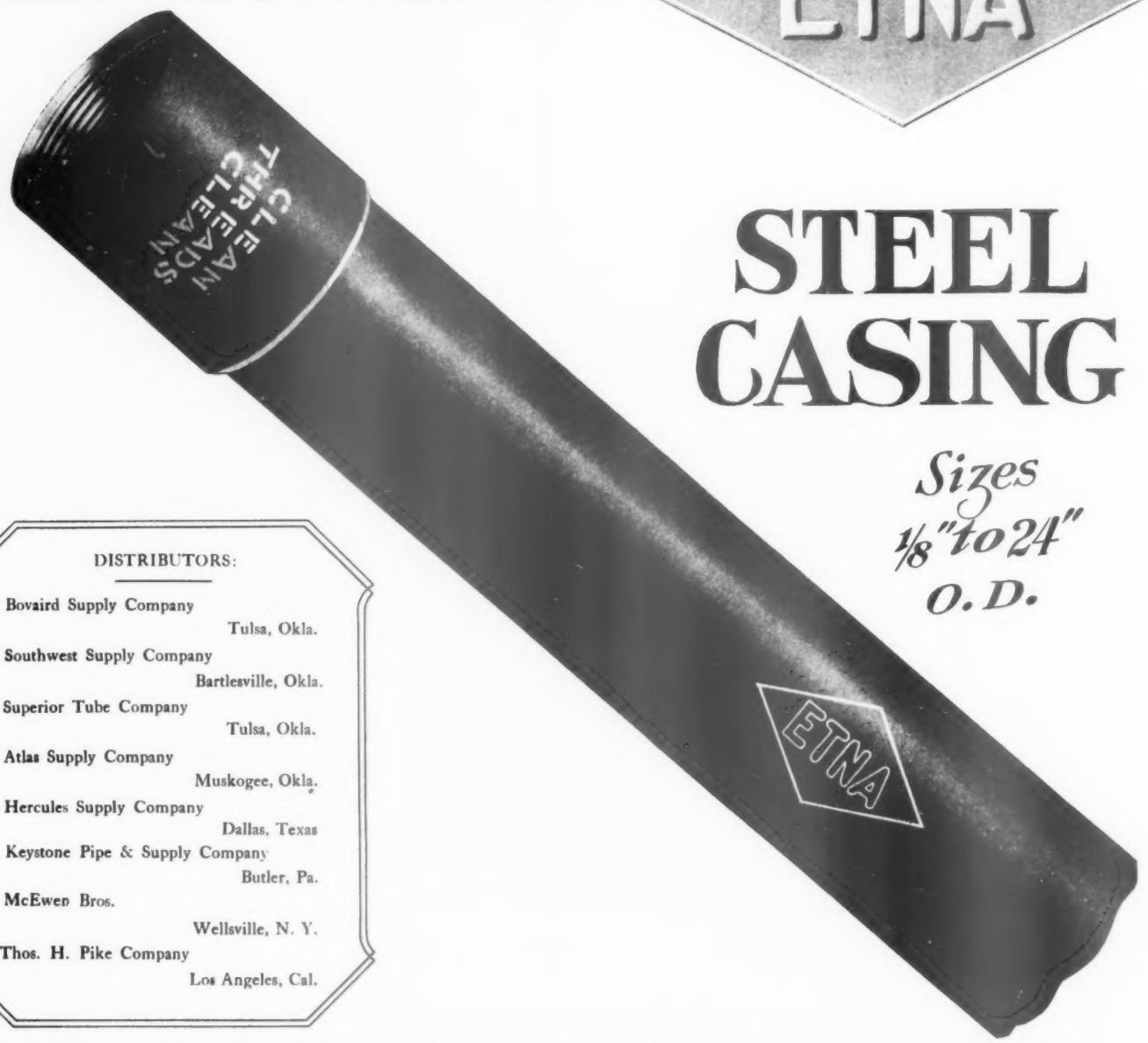
Tanks—Agitators—Stills
Smoke Stacks—Stand Pipes
Oil Refinery Equipment, Etc.

The Petroleum Iron Works Company
Sharon, Pennsylvania

Plants: Sharon, Pennsylvania, and Kansas City, Kan.
Branches: New York, St. Louis, Tulsa, Houston, Kansas City, San Francisco

Year after year Always the same—

DEPENDABLE ETNA



STEEL CASING

Sizes 1/8" to 24" O. D.

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SPANG, CHALFANT & CO., INC.

GENERAL OFFICES, UNION BANK BUILDING

PITTSBURGH, PA.

Branch Offices:

PITTSBURGH, PA. CHICAGO, ILL. NEW YORK, N. Y. ST. LOUIS, MO.

Mills:

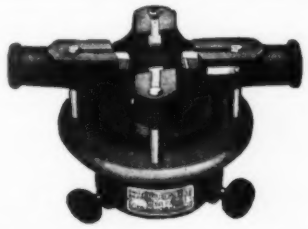
ETNA, PA. SHARPSBURG, PA.

The No. 1A is the same as the No. 1 except that it is equipped with a ratchet for work where space is restricted.

No. 1A Nye Toledo Type Pipe Threader, complete ..... $12.00 net
West of Rocky Mountains $13.50

NYE—*The Die Man*

Pipe Tool Maker to the American Plumber and Steamfitter



The rugged construction and few working parts account for the simplicity and durability of these Nye Toledo Type models. They do the work easily and efficiently.

No. 1 Nye Toledo Type Pipe Threader, complete ..... $9.60 net
West of Rocky Mountains $10.80

Nye Saunders Pipe Cutters

No. 1	$ 1.80	net
No. 2	2.70	"
No. 3	6.50	"
No. 4	10.80	"
No. 5	16.80	"

"Near" and "Nigh"

A lot of people think that "near" and "nigh" mean the same thing, but they don't, not by a long shot. Nor "Nye," either.

There are a lot of near tools, but they are not Nye tools. They are not any where near Nye tools.

There is only one thing near as good as a Nye tool, and that is another Nye. They are pretty near perfect.

Don't monkey with near tools. Get Nye tools. There is a Nye jobber near you.

HARRY G. NYE.

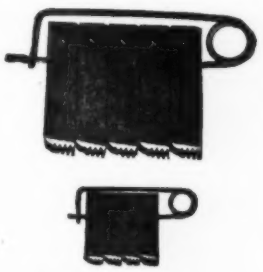
THE NYE TOOL & MACHINE WORKS
4120-30 Fullerton Avenue
CHICAGO, ILL.

Nye Barnes Pipe Cutters

No. 1	$ 2.25	net
No. 2	3.00	"
No. 3	5.00	"
No. 4	10.00	"
No. 5	15.00	"
No. 6	20.00	"

Nye Drop Forged Pipe Cutters

No. 1-A, ⅛ to 1¼"	$2.25	net
No. 2-A, ¼ to 2"	3.00	net
No. 3-A, 1 to 3"	5.00	net

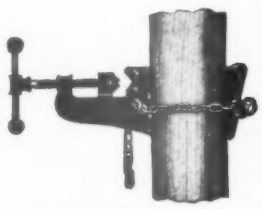


Nye Toledo Type Chasers

Also fit Nos. 1 and 2 Toledo Type Die Stocks.

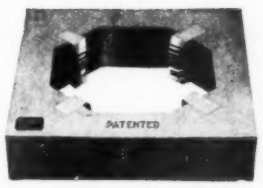
Each set is guaranteed in every particular. Will cut much easier than other similar dies.

No. 1, 1" to 1½"	$ .75	per set net
No. 1, 2"	1.25	per set net
No. 2, 2½" to 4"	3.60	per set net



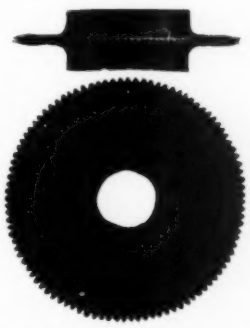
Nye New Style Chain Vice

Wedge and saddle made in one unit so that parts cannot be lost. Vise complete with 40-inch chain ..... $6.18 net



Nye Solid Die

Nye Dies are made of finest materials obtainable for the purpose. They are hardened and tempered in oil. Will quickly pay for themselves in the actual saving of labor. Made in both right and left hand.



Nye thin blade cutter wheel, made to fit all standard makes of pipe cutters, and guaranteed against breakage in use. Made both in smooth and knurled edge.

New Type Self-Locking Vises

No. 00	$2.82	net
No. 10	3.34	net
No. 20	5.00	net
No. 30	7.33	net

The Sharples Process

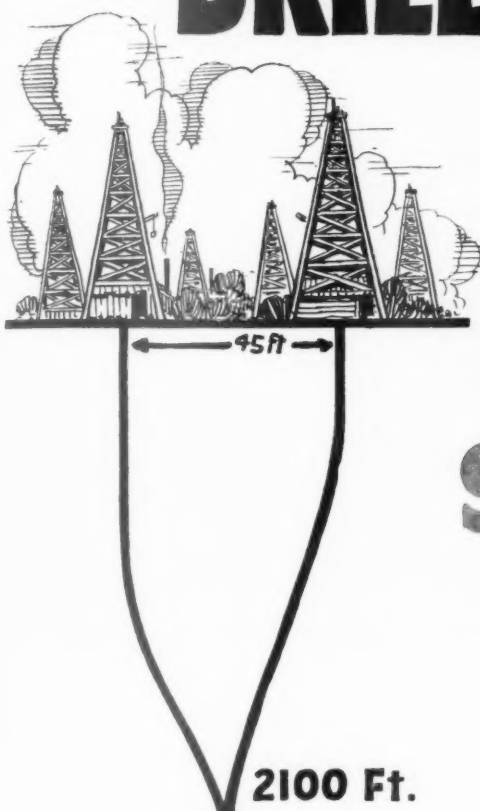
The Atlantic Refining Company have recently contracted for sufficient additional Sharples centrifugals so as to increase the capacity of their initial Sharples dewaxing plant (partial view reproduced below) by 150%.

MAX. B MILLER & CO. INC

501 FIFTH AVENUE, NEW YORK CITY

2 Companies~on different leases are shocked to find they have been~

DRILLING IN THE SAME HOLE!



The Star Petroleum Corp.'s Colby No. 2 and the Wilshire Oil Co.'s No. 2-A well were being drilled on adjoining leases in the Los Cerritos area of Signal Hill. It is reported that the holes, at surface, were 45 feet apart.

Star was drilling ahead at about 2,400 feet the other day. Wilshire was drilling at 2,100 feet when the action of the tools led the drillers to think that they were drilling on iron. They knew there was no iron in the hole, so they promptly pulled the tools out. Meanwhile the Star crew had felt the Wilshire bit pounding on their drill stem, so they proceeded to hoist the tools.

According to field reports the Wilshire drill had drifted over and milled a hole through the side of Star's casing. It is believed that both holes had drifted quite a way to one side. Work was suspended on the wells for a couple of days and then, by mutual agreement, the holes were plugged back to a point above the collision, and a fresh start was made with the drills.

FROM A RECENT ISSUE OF THE OIL & GAS JOURNAL

This waste and delay could not have happened had they used

SPIRAL STEMS

The play of an ordinary stem permits it to be sidetracked, without resistance, from a vertical course when it meets with a boulder or other obstacle, thus starting the hole crooked.

Recurring obstructions and the resulting deviations slacken drilling speed, overload the equipment with heavy side fraction, and cause deep wells to drift as much as several hundred feet away from the perpendicular.

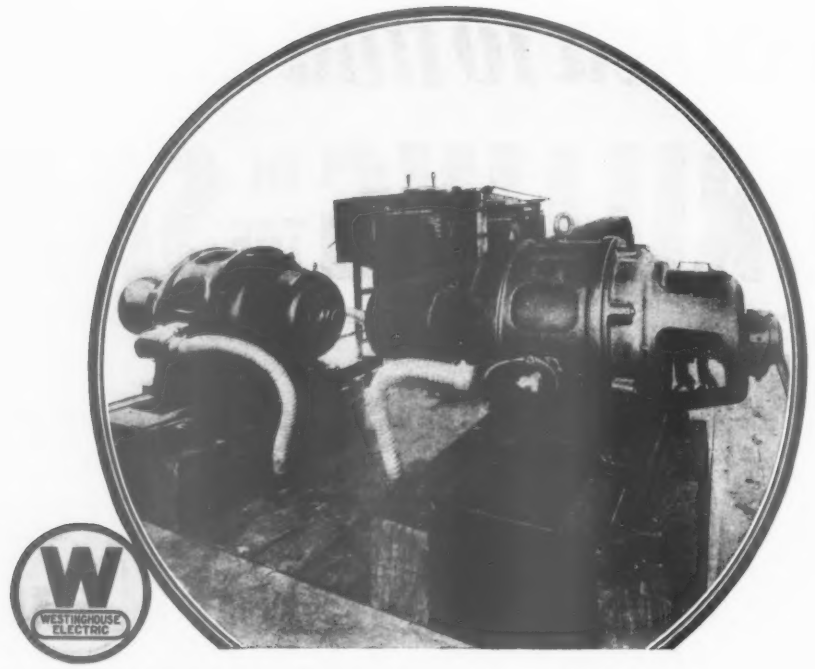
The SPIRAL STEM has no side play because it fills the hole, forcing the bit to cut straight through all obstructions. Yet it does not CLOSE the hole. The spiral grooves provide ample waterway.

Besides preventing crooked holes, the SPIRAL STEM serves all other purposes. (1) It Indicates Deviations; (2) Mixes Mud; (3) Prevents Mud Rings; (4) Cleans Path for Bailer; (5) Reduces Whipping; (6) Guards Against Cave-ins; (7) Simplifies Fishing Jobs; (8) Protects Casing Shoe; (9) Protects Casing From Line Cutting; (10) Perfects Reaming; (11) Strengthens the Walls.

For further information and literature address the

TITUSVILLE FORGE COMPANY
TITUSVILLE, PA.
Distributed by Continental Supply Co.
St. Louis, Mo.
For Export: Continental Well Supply Co., New York City

SPIRAL STEM



IS THERE ANYTHING CERTAIN ABOUT DRILLING FOR OIL?

Complete control of all operations from derrick floor by means of headache post control

Echo answers in a million-tongued voice "You bet your life there is; added expense, exasperating delays, a thousand unforeseen contingencies are certain."

Westinghouse twin-motor drilling equipment for cable tool work minimizes the uncertainties of oil well drilling.

With this equipment you are sure of:

Perfect motion at all depths of hole.

Wide power and speed range for drilling and for handling casing, tools, etc.

Minimum stand-by losses and attendance costs.

Low operating costs.

Minimum number of renewal parts due to using motors of uniform size for drilling and pumping.

Simplified and inexpensive installation. The equipment is all ready to install when received at the rig—all wiring is done at the factory.

Westinghouse twin-motor equipment offers you operating advantages not found in any other drilling equipment.

Westinghouse Electric & Manufacturing Company
East Pittsburgh Pennsylvania

Sales Offices in all Principal Cities of the United States and Foreign Countries

Westinghouse

X88879

International Harvester Equipment

TRUCKS • • TRACTORS

INTERNATIONAL HARVESTER offers transportation buyers in the oil business an unmatched line of automotive equipment. Each model and each type of equipment has grown out of nearly a quarter of a century of catering to the commercial motor vehicle requirements of America.

Heavy-Duty Trucks: These popular models are making history among some of the country's most important truck users. Oil companies, contractors, railroads, express companies, municipalities, warehousemen, manufacturers, retailers and others are hauling their heavy loads with International Trucks of from 1½-ton to 5-ton maximum capacities.

Speed Trucks: The list of International Speed Truck owners is equally impressive. Wherever lighter loads must be hauled quickly these economical trucks are found in great numbers. Capacities include a ¾-ton Special Delivery, 1-ton Speed Truck 1½-ton low-chassis "SL," and 1½-ton short-wheelbase "SD."

McCormick-Deering Industrial Tractors: The illustration below shows one of these tractors in pipe line service. These compact, full-powered units are available with wheel and tire equipment for all classes of industrial and municipal work. Ideal for heavy duty service with trailers and semi-trailers.

120 Company-Owned Branch Houses: The largest company-owned truck service organization in the world is at the call of International Truck and McCormick-Deering Tractor owners.

INTERNATIONAL HARVESTER COMPANY
606 So. Michigan Ave. of America (Incorporated) Chicago, Ill.

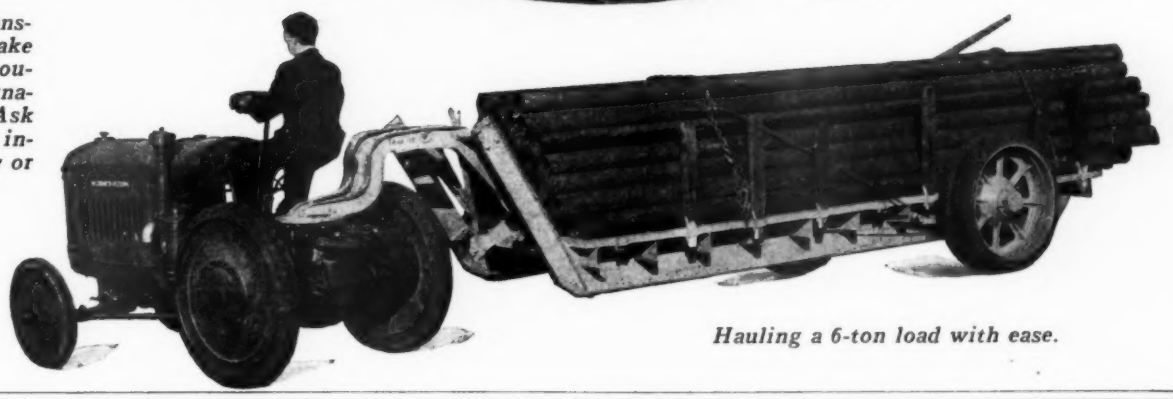
Typical of a Thousand Letters

"We want you to know that we are enjoying complete satisfaction from our five International trucks. Our rapidly increasing business is due in large part to the unfailing performance of our International fleet. When we buy more trucks, we will buy Internationals." *(Note: they have since bought five more.)*

* * *

"This makes our eleventh International truck. In our seven years of experience in road building, we have found that Internationals will stand up under hard usage longer than any other of the numerous makes we have used. As for your service, it is unequaled."

If in need of transportation units, take a tip from the thousands of International owners. Ask us for complete information on any or all models.



Hauling a 6-ton load with ease.

The first use of gas in America 1821

Fredonia, New York, the most progressive city in America . . . first to use Natural Gas for street lighting. Gas lighted streets became the best selling argument for real estate. It was a factor in political campaigning. And who can gainsay that it was not one of the greatest contributions to the civilization and progress of a young and struggling nation?

Today, one century after the celebration of the municipal lighting system of Fredonia, natural gas has flashed to another epoch in the march of civilization. Now every motorist depends upon it . . . demands that to refined gasoline be added the proper percentage of NATURAL GASOLINE to make the perfect motor fuel.

CHESTNUT & SMITH
CORPORATION
Tulsa, Oklahoma

When Your Well Starts *Cutting* *You* Can Start *treating!*

No Costly Delays

The TRET-O-LITE Process is *rapid* in every way. The company carrying in stock the correct type of TRET-O-LITE, can begin actual treatment within a few hours after the well starts cutting.

Treatment itself is rapid, time being required only for mixing and settling to take place. Mixing is often completed in the flow line, during the normal flow of the cut oil from well to settling tank. Settling requires only the time for normal oil and water to separate.

Investigate this most widely used of all treating methods. Our nearest field representative will be glad to call without obligation.

WM. S. BARNICKEL & COMPANY
St. Louis, Mo.

Offices and Plant:
Webster Groves, St. Louis County, Mo.

Process Patented

Tret-O-lite
Reg. U. S. Pat. Off.

28 Here they are.

Definite Reasons

why the new Bessemer Oil Field Engine and Clutch is the finest unit for Oil Country Service

OIL men are universally hailing the new Bessemer Oil Field Engine as the greatest improvement in Oil Field power equipment in the last decade. There are twenty-eight convincing reasons why the New Bessemer Oil Field Engine equipped with the Bessemer Clutch is by far the greatest value in an Oil Field Engine unit.

Compare the new Bessemer Oil Field Engine with any other engine of its type and you will quickly be convinced that it's the *only* engine for Oil Country Service.

THE BESSEMER GAS ENGINE COMPANY
52 York Street ∴ ∴ Grove City, Pa.

California Distributor
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San Francisco—Los Angeles

California Branch
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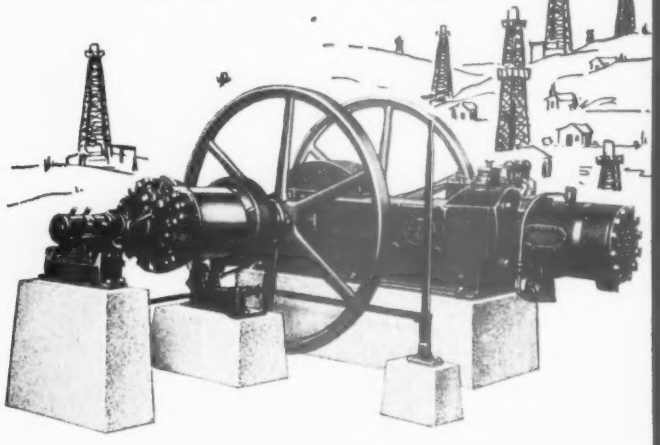
Los Angeles



THE ENGINE

1. Entirely enclosed bed plate.
2. Force feed lubrication operating from same eccentric as ignition.
3. Air valve on top of bed plate.
4. Efficient Bessemer governor.
5. Cleanout type cylinder head. Entire front of cylinder head removable, exposing water jacket.
6. Jump spark ignition.
7. Easy to clean water jacket. An easily removed plate on either side of cylinder permits quick access to water jacket space.
8. 6-inch exhaust on 30 H. P. and 35 H. P. engines.
9. Outside bolting-cylinder readily removed.
10. Bored crosshead with adjustable shoes.
11. Large, quickly removed side plates give easy access to adjustable crosshead.
12. Splash lubrication to crank, crosshead and main bearings.
13. Counterweight on crankshaft, giving perfect balance on crank.
14. Adjustable and removable main bearings.

THE CLUTCH

15. Steel flange.
16. Asbestos lined brake band.
17. Steel spur gears, machine cut.
18. Over twice engine speed in reverse.
19. Forged shifting lever.
20. Special steel alloy shaft.
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27. Gears run in oil bath.
28. Removable lever.

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The special service demanded from mechanical rubber goods both in the oil field and in refinery duty is met by the special construction of Goodyear Belts, Hose, Valves and Packing.

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Goodyear Belts and other mechanical rubber goods for the oil industry are all specified to their duty by the G.T.M.—Goodyear Technical Man. The G.T.M. is an expert on belting. He knows the demands of the oil industry. You may rely on any Goodyear Mechanical Rubber Goods that he may recommend to give you more efficient, uninterrupted and trouble-free service.

For detailed information about the work of the G. T. M., the Goodyear Analysis Method and Goodyear products for your industry, write to Goodyear, Akron, Ohio, or Los Angeles, Calif.

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Goodyear Means Good Wear

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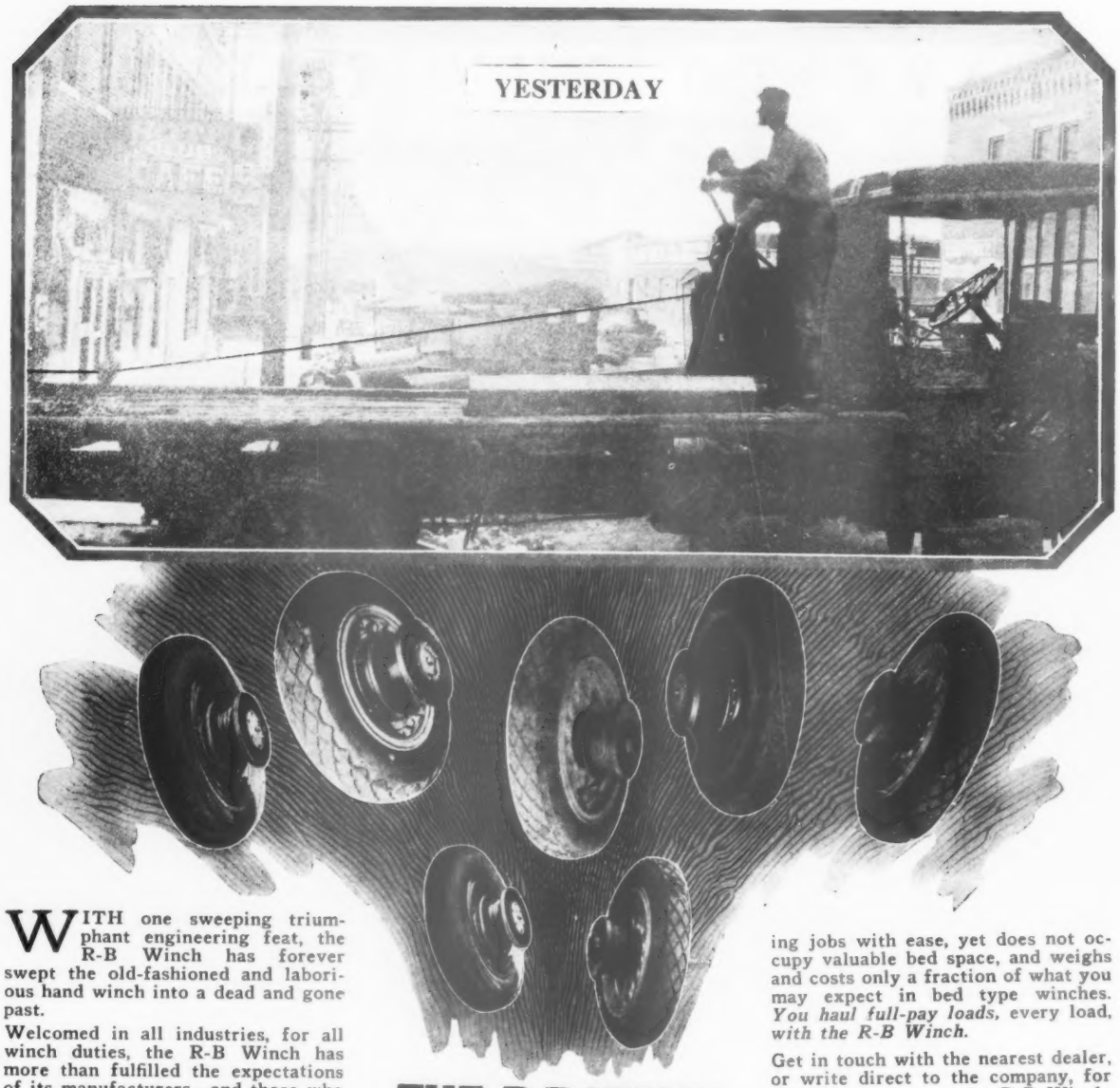

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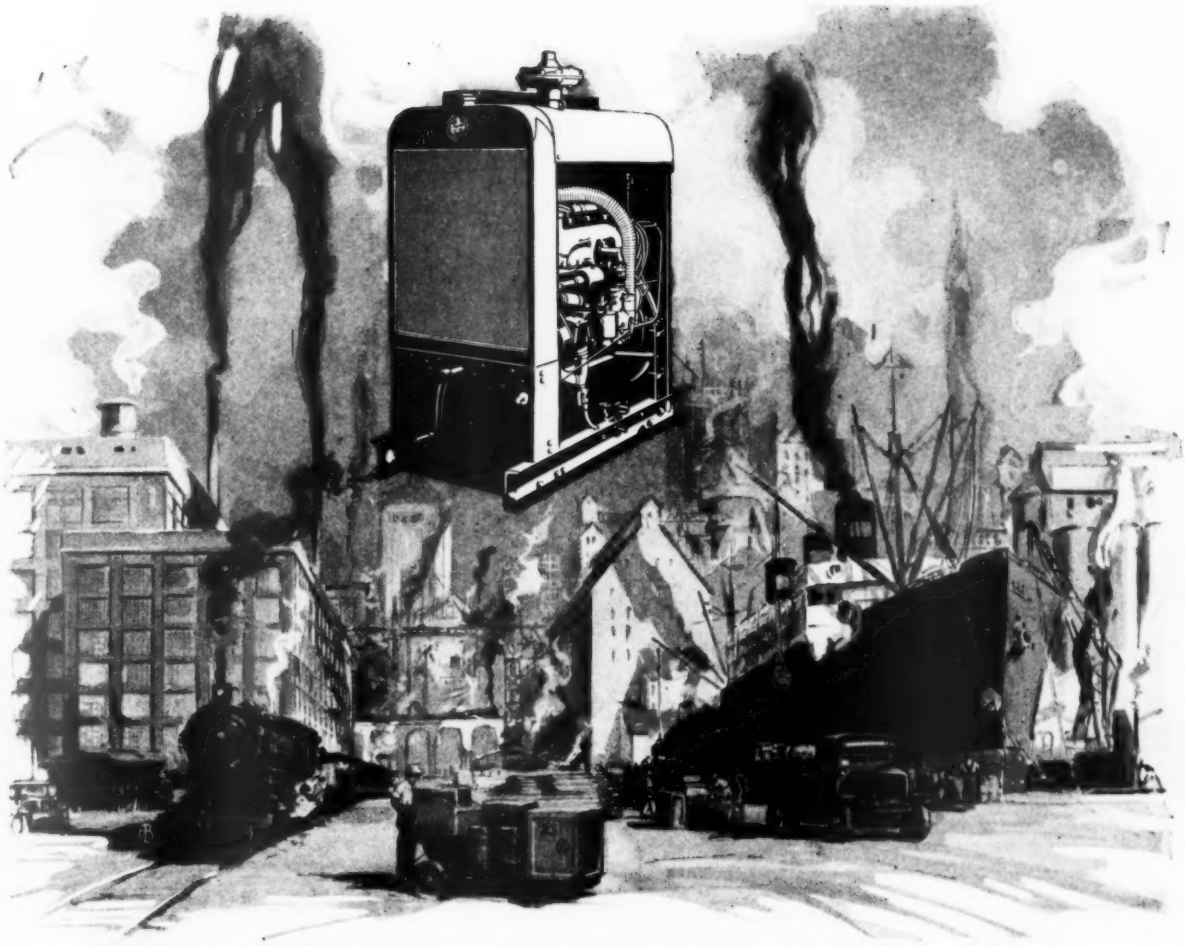

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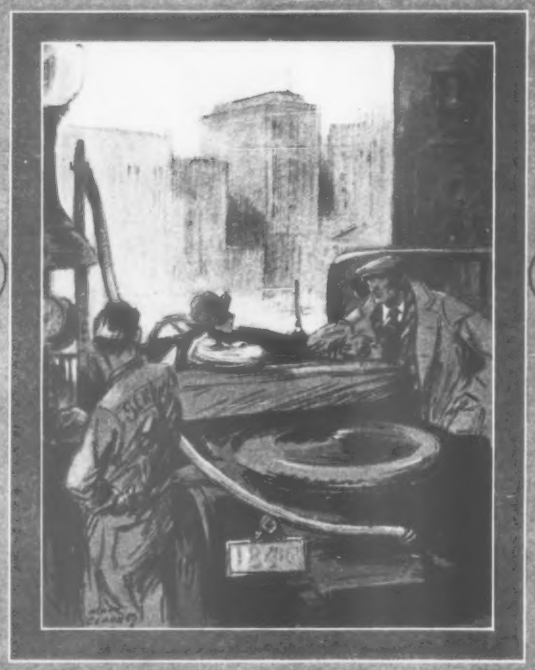

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Texarkana, Arkansas, July 17, 1926.

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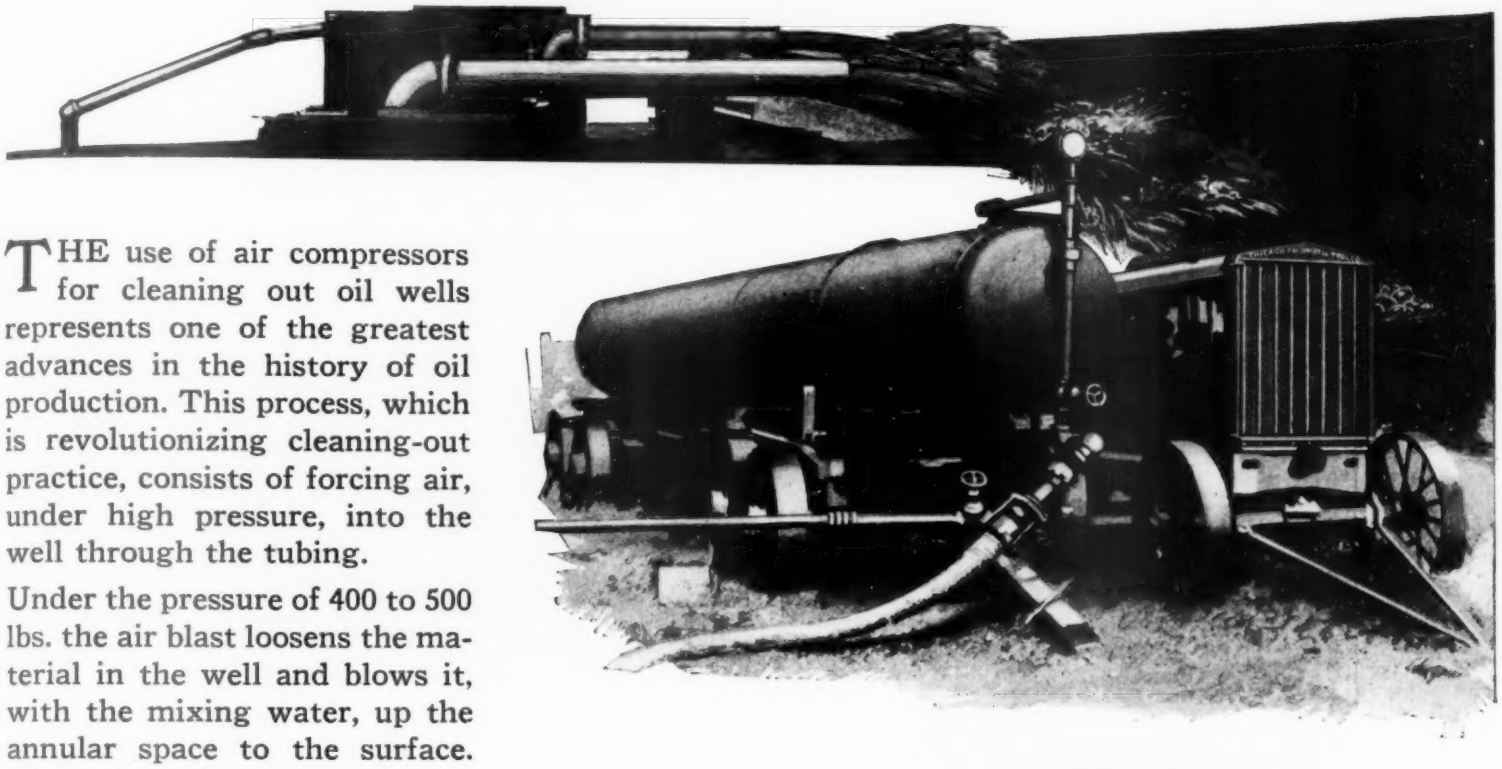

THE use of air compressors for cleaning out oil wells represents one of the greatest advances in the history of oil production. This process, which is revolutionizing cleaning-out practice, consists of forcing air, under high pressure, into the well through the tubing.

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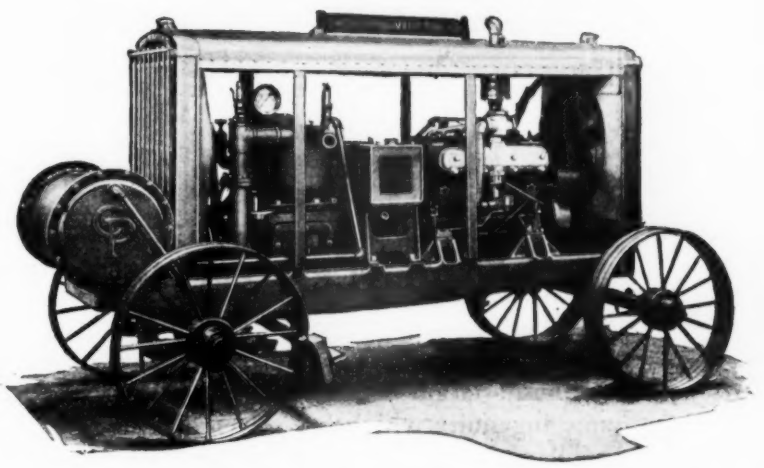
Every well and field presents its own particular cleaning problems. CP Engineers will be glad to discuss the application of CP Compressors to your individual needs.



Chicago Pneumatic Portable Air Compressor. This Compressor is a high pressure, two-stage, vertical machine, piston displacement 155 cu. ft. with final discharge pressure of 500 pounds.

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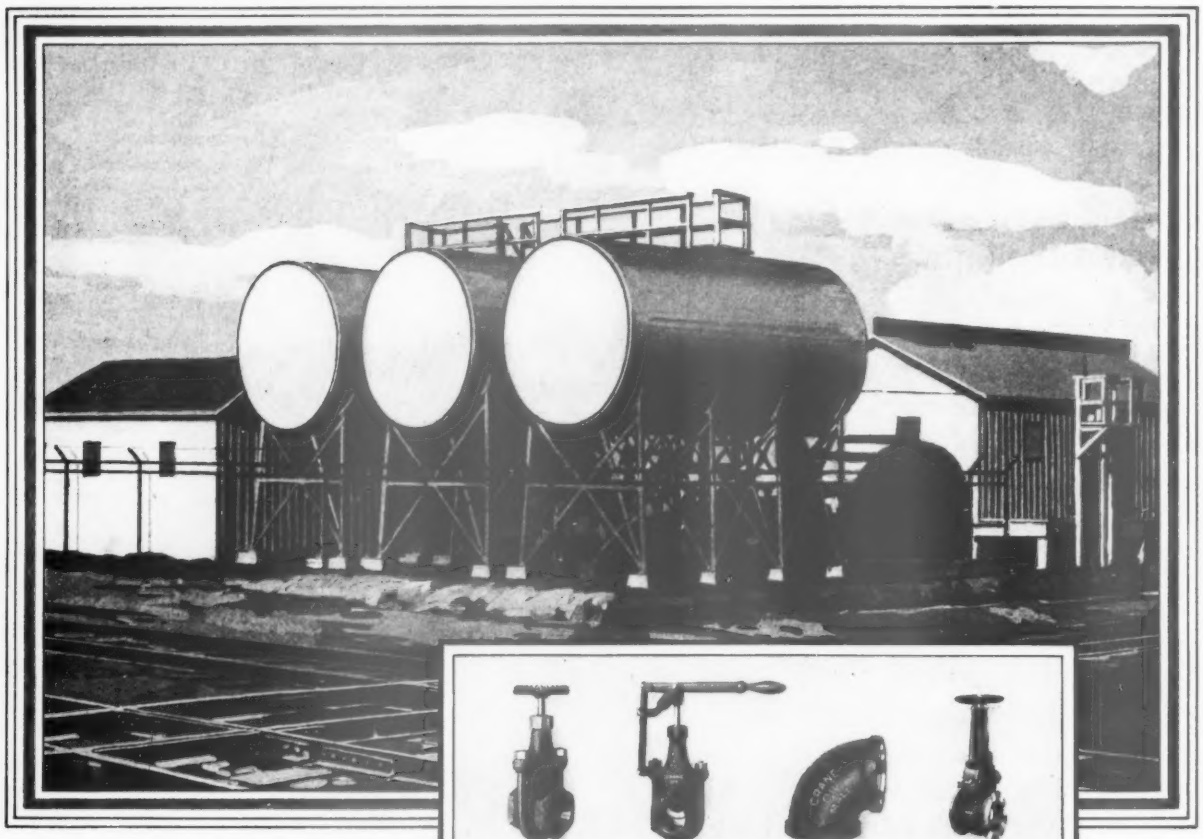
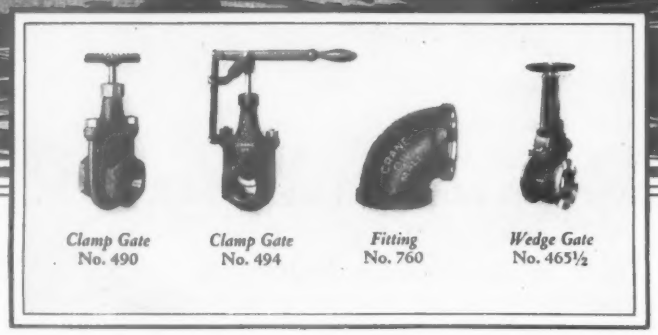
No. 9 of a series showing how Crane serves the oil industry from well to filling station



Oil waiting at a bulk station for loading in distributing truck



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The OIL and GAS JOURNAL

PRODUCING REFINING MARKETING

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WHAT AND WHERE TO BUY—PAGES 181-182-183

Crude Oil Situation Holding Its Own

Highest daily average estimated production week ended May 30, 1925, 2,347,984 bbls. Lowest in 1925, January 3, 1,911,730 bbls.

Industry Absorbing Big Production. Oklahoma, Texas and California Are Especially Active at This Time

By Andrew M. Rowley

Highest daily average estimated light oil production in 1925, week ended January 17, 1,525,220 bbls. Lowest in 1925, July 18, 1,374,173 bbls.

The feeling the petroleum industry will continue to be able to absorb crude oil production for some time to come, without placing too much of a burden on the crude oil price structure is prevalent among operators who keep in close touch with the general situation throughout the country. There was no big development during the past week to change this feeling, although the Nigger Creek area in Texas near the Mexia Field looks far better than it did a week ago, owing to the completion of several good producers. It is still felt the producing limits of this field will be comparatively small.

The general situation, as outlined in this column a week ago, remains much the same. Outside of California, there are three big areas commanding attention—the Seminole Pool in Oklahoma; Spindletop, in the Gulf Coast; and the Panhandle Field in Texas. Seminole probably will wield the greatest influence on the general situation during the remainder of this year as it is believed that field will develop a production of from 60,000 to 75,000 barrels daily by November 1, and that oil will be immediately available for markets, exerting a quick influence on the price structure. Spindletop continues to bring in large wells as is indicated by the 10,000-barrel completion there late Saturday but the big intrusion of salt water there is an important factor and indicates, it is said, a rapid decline when completions fall off. As stated numerous times, the Texas Panhandle crude is not readily available to markets and is not desired very greatly by refiners who are in a position to buy other crude.

During July, 45 per cent of all the crude produced in the Texas Panhandle went into storage and 60 per cent of the output of all companies but one went into storage. It is believed the percentage going into storage now is greater.

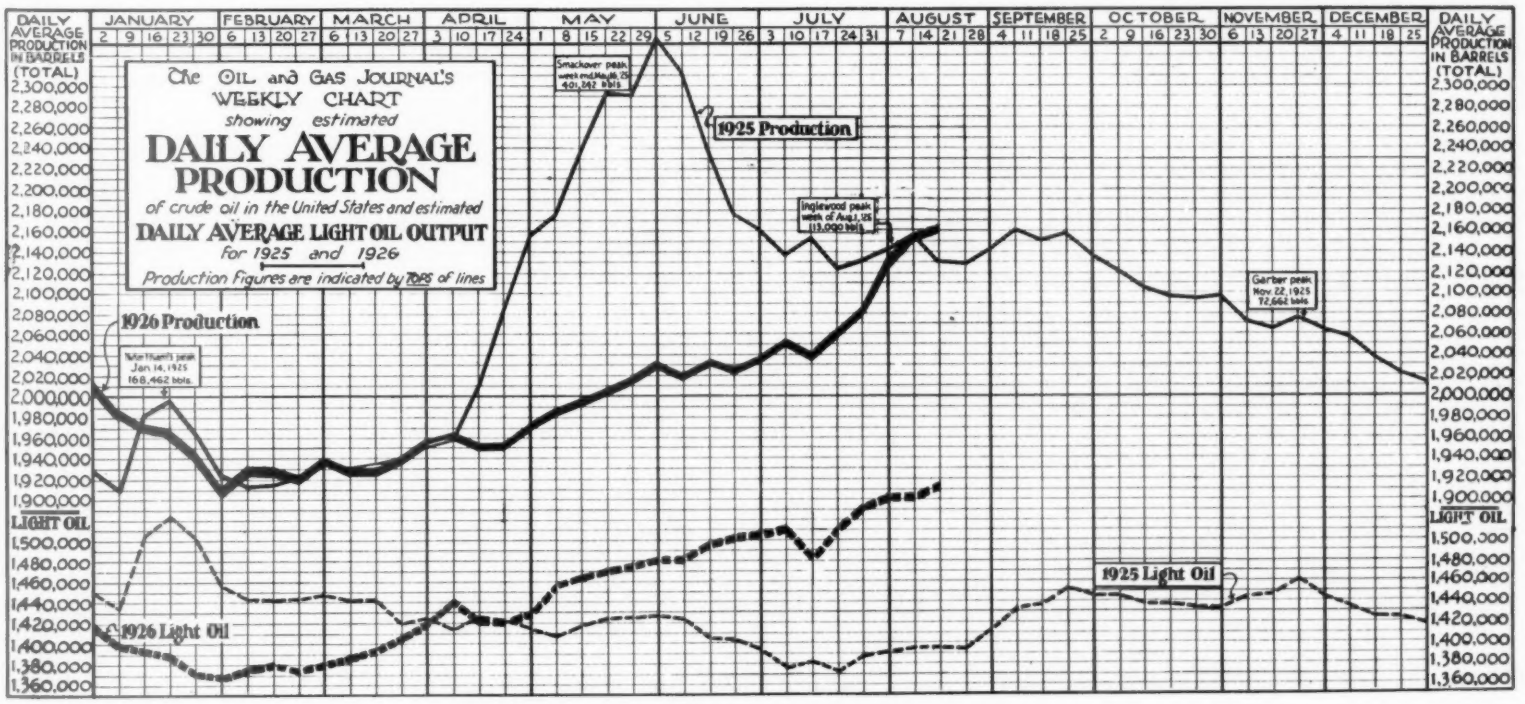
California will continue to exert quite an influence on the general situation throughout the remainder of this year and at least far into next. New developments at Seal Beach, in the Huntington Beach extension, at Dominguez and other areas indicate there will be no material reduction in production on the Pacific Coast this year. And, it must be kept in mind the output of California could be increased materially if operators developed proven acreage quickly and opened up all producing wells.

PRODUCTION IN THE UNITED STATES

Estimated daily average production of light and heavy gravity crude oil in the United States for week ended August 14, and a comparison with the previous week follows:

	Aug. 14		Aug. 7	
	Light	Heavy	Light	Heavy
Oklahoma—				
Tonkawa	37,140	.....	38,210	.....
Burbank	49,220	.....	47,340	.....
Other Osage Fields	34,070	.....	34,235	.....
Cushing and Shamrock	21,595	.....	21,695	.....
Bristow and Eastern Bristow	28,215	.....	28,260	.....
Cromwell	16,530	.....	16,395	.....
Garber	33,270	.....	34,505	.....
Blackwell-Braman	18,530	.....	17,265	.....
Seminole	14,375	.....	10,815	.....
Wewoka	32,955	.....	31,385	.....
Northern Miscellaneous	113,710	.....	114,255	.....
Southern Fields	65,270	.....	65,125	.....
Total Oklahoma	464,880	.....	459,485	.....
North Louisiana	42,815	13,785	43,180	13,260
Arkansas—				
Smackover	14,895	121,640	15,455	122,995
Miscellaneous	20,330	.....	21,690	.....
Total Arkansas	35,225	121,640	37,145	122,995
North Central Texas	178,948	.....	179,826	.....
Texas Panhandle	94,260	.....	88,025	.....
Powell	28,300	.....	28,623	.....
Mexia, Currie, Richland	14,810	.....	16,202	.....
Nigger Creek	3,000	.....	624	.....
Wortham	7,050	.....	7,175	.....
Kansas	111,215	.....	110,390	.....
Total Mid-Continent Area	980,503	135,425	970,675	136,255
Gulf Coast	.....	170 280	.....	173,745
Southwest Texas	.....	46,240	.....	45,930
Eastern	105,200	.....	104,750	.....
Rocky Mountain Area	113,570	.....	110,663	.....
California—				
Santa Fe Springs	49,000	.....	49,500	.....
Long Beach	107,000	.....	108,000	.....
Huntington Beach	45,000	.....	44,500	.....
Torrance	5,500	23,000	6,000	23,000
Dominguez	21,000	.....	20,500	.....
Rosecrans	15,500	.....	16,000	.....
Inglewood	26,000	20,000	27,000	20,000
Ventura Avenue	48,000	.....	45,000	.....
Remainder of State	41,000	212,500	43,000	214,000
Total California	358,000	255,500	359,500	257,000
Total United States	1,557,273	607,445	1,545,588	612,930
Grand Total		2,164,718		2,158,518

→ **Total Increase, 6,200 Bbls.; Light Oil Increase, 11,685 Bbls.** ←


The OIL and GAS JOURNAL'S
WEEKLY CHART
showing estimated
DAILY AVERAGE PRODUCTION
of crude oil in the United States and estimated
DAILY AVERAGE LIGHT OIL OUTPUT
for 1925 and 1926
Production Figures are indicated by TOPS of lines
DAILY AVERAGE PRODUCTION IN BARRELS (TOTAL)
JANUARY FEBRUARY MARCH APRIL MAY JUNE JULY AUGUST SEPTEMBER OCTOBER NOVEMBER DECEMBER
1925 Production
1926 Production
Smackover peak week end May 16, 29, 401,342 Bbls
Inglewood peak week of Aug 1, 25 113,000 bbls
Garber peak Nov 22, 1925 72,662 bbls
John Ruth's peak Jan 14, 1925 168,462 bbls
LIGHT OIL
1925 Light Oil
1926 Light Oil

WHAT AND WHERE TO BUY—PAGES 181-182-183

All Products Strong Except Gasoline

Fuel Oils, Distillate and Kerosene Advance in Oklahoma While Refinery Motor Fuel Market Slumps

By Neil Williams

Only the weakness of gasolines prevented Oklahoma (Group 3) refiners from enjoying a universally strong market the past week. All other products were stronger than a week ago with quotations substantially higher. In fact, very little material was available at any price.

However, the weakness of gasoline was sufficient to cause considerable worry. The fractional reductions which developed a week ago increased to such an extent the past few days that the gasoline situation Monday and Tuesday appeared on the verge of a serious break.

This was in face of reports earlier in the month that many refiners not only had reduced stocks to an absolute minimum but also had oversold their production for the first half of August. During the latter part of July and the earlier part of August the outlook for gasoline was particularly favorable with several large Mid-Continent refiners in the market for sufficient supplies to meet their rapidly increasing retail demand.

However, during the past week when there was a noticeable slackening in jobber demand, an increasing amount of gasoline became available and routine buyers found little difficulty in covering their needs on a declining market from sellers anxious to move excess material.

Reason for Softness

Some market students attribute the softness in gasolines to the desire of refiners to keep their stocks at a low level. Considerable gasoline has been taken from Mid-Continent storage this season, although the reduction, according to the latest Government figures, has not been as great as many believed. Now a number of refiners rather than hold their gasoline for a better demand and accumulate stocks are trying to keep their daily production moving at the expense of low prices.

By this policy of keeping down stocks, these refiners point out, the market will be better able to respond to any increased demand which may develop later. If stocks are low, weaknesses can be attributed directly to the fact that daily production is greater than the daily consumption. This apparently is the condition Oklahoma refiners are now facing.

Why Oklahoma, as well as all Mid-Continent refiners, should not have a better domestic demand for gasoline during August, one of the peak motor consumption months of the year, to take care of the daily production, is the basis of much of the uncertainty which exists. It is known that consumption of gasoline is greater this year than ever before but still jobbers and domestic buyers are buying comparatively little material from Mid-Continent refiners.

However, despite the record consumption for the country as a whole, a careful study of the situation by several market students the past week only emphasized the fact that the marketing territory for the Mid-Continent, especially Oklahoma and north Texas, is smaller than ever before.

Ohio and Indiana

The increasing amount of gasoline produced in other refining centers apparently is closing in gradually on the outlets for Mid-Continent gasoline. One large Oklahoma refiner, who in previous years has done the bulk of his business in Ohio and eastern Indiana, points out that due to increased amounts of cheaper material available there from local and east coast refineries his business there during July

(Continued on Page 160)

REFINED MARKET BAROMETER

Little change was shown in refined markets of the country the past week. Practically all products, except gasolines, continued universally strong. The weakness of gasolines on Mid-Continent and middle western markets still was confined to those areas as the heavy consumption in other sections was sufficient to maintain strength in remaining refining centers. Kerosene was in demand at all refineries east of the Rocky Mountains with prices substantially higher. The strength was reflected in general tankwagon advances throughout the northern, central and middle western states. Distillates, gas oil and fuel oil also strengthened in all sections and in some sections these products were almost unobtainable. The keen demand for cracking stocks, coupled with the seasonal contract making for winter burner and fuel supplies, has placed these products at a premium. Natural gasolines also improved. In the Mid-Continent this offered a contrast to refinery gasolines. West Coast gasoline manufacturers enjoyed a record movement. Lubricants were strong with a few exceptions. Export channels were more active as well as domestic movement.

Mid-Continent—Refinery gasoline sluggish and prices reduced. Other products strong and scarce. Natural gasoline find more active demand. Kerosene strength reflected in general tankwagon advance over Standard Oil Co. of Indiana territory. Gas oil, fuel oil and distillate prices higher. Lubricants unchanged but strong. Wax slow.

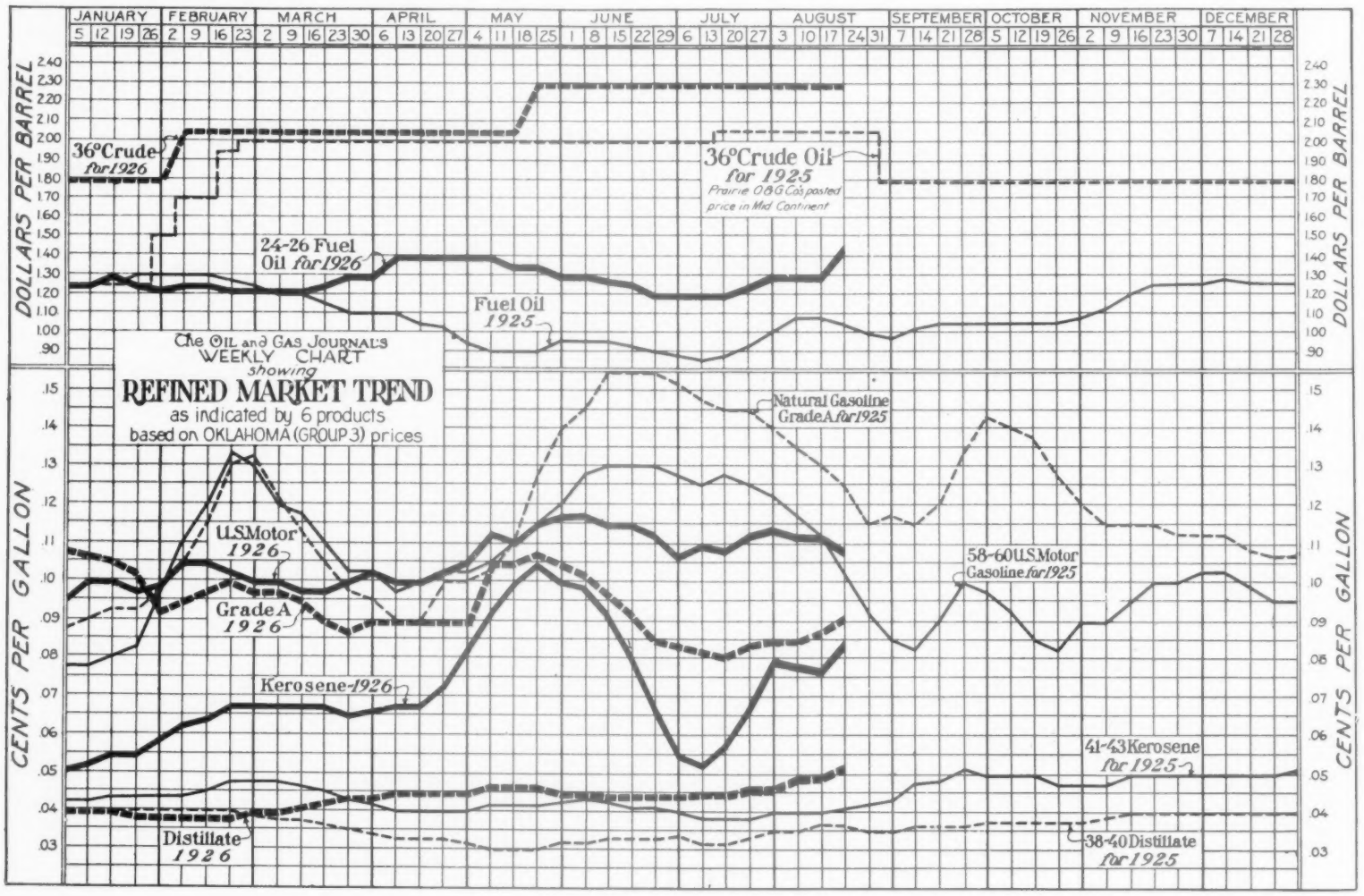
Atlantic Seaboard—Gasoline consumption increases. Markets firm. Kerosene strong due to heavy demand for tractor and burner use. Lubricant demand stable. Export demand for cylinder stocks improves. Wax and petroleum unchanged.

Pennsylvania—Gasoline demand heavy but market generally unchanged. Kerosene strengthens. Lubricants spotted. Neutrals and bright stocks active but cylinder stocks slow.

Chicago—Domestic demand for gasoline slackens forcing prices down. Other products strong.

California—Gasoline moving satisfactory both for export and domestic use. Natural gasolines in demand. Lubricant business heavy.

Gulf Coast—Unchanged.


JANUARY FEBRUARY MARCH APRIL MAY JUNE JULY AUGUST SEPTEMBER OCTOBER NOVEMBER DECEMBER
DOLLARS PER BARREL
CENTS PER GALLON
36° Crude for 1926
36° Crude Oil for 1925
Prairie O&G Co. posted price in Mid Continent
24-26 Fuel Oil for 1926
Fuel Oil 1925
The Oil and Gas Journal's WEEKLY CHART showing
REFINED MARKET TREND
as indicated by 6 products
based on OKLAHOMA (GROUP 3) prices
Natural Gasoline Grade A for 1925
U.S. Motor 1926
Grade A 1926
58-60 U.S. Motor Gasoline for 1925
Kerosene-1926
41-43 Kerosene for 1925
Distillate 1926
38-40 Distillate for 1925

Marketing of Oil Deserves Attention

Petroleum Industry Should Consider Question of Large Number Filling Stations to Avoid Unnecessary Expense

By Phillip Kates*

Possibly the most striking feature of the oil industry that will soon come in for consideration of economists, is the waste that characterizes the jobbing and distribution of gasoline. And the first reaction is criticism. For there can be no doubt that an excessive cost in distribution means an excessive cost for the product. That is, a load added to production and refining costs for which there is no reason.

It is not necessary to expand upon the situation that has arisen. When as many as three, or even the four corners of a street intersection in a city district where real estate values are high, are all devoted to one business selling the same product, which, theoretically, should be sold under uniform specifications, that is, of uniform price and quality; and with filling stations multiplying beyond actual needs, both in suburban areas and on country roads, it must be apparent that the useless expenditure in service and equipment puts a load on the sales price, which the people must pay.

Under an absolute dictatorship, the answer might be easy: The limitation of filling stations to the estimated needs of any determined area. But under a system of individual freedom in trade, many difficulties arise.

Refiners Retail Their Own Product

It may be urged that unlimited competition means continued improvement in the product sold, for both the control and the ownership of distributing stations are passing from the small dealer and jobber into the hands of refiners, and the attempt is being made to focus public attention upon particular qualities, claimed by each refiner to be superior to those of the product of other refiners. And it is also said that direct sales at filling stations enable the refiners to market their product in the immediate vicinity of their plants, or in what may be called their natural trade territories.

But with a standardization of engine requirements and lubricating systems, a sound policy should be a standardization of oil products. And, in the present state of the refining industry, it is questionable whether improvements in refining processes can be confined to any one plant, or group of plants, to the extent that any great claims to superiority of its product can be maintained. The superiority of the Pennsylvania oils for lubricants has long been an axiom in the industry; but the basic German patent to Hemptinne and Alexander, issued in 1909, may increase the lubricating qualities of various oils, so that more uniformity of lubricating specifications may be possible, even with different grades of oil; just as the cracking process rendered possible the recovery of high-grade gasoline from heavy oils. By subjecting a thin, low viscosity oil to a glow discharge of relatively high frequency electricity, the Germans were able to manufacture a vegetable castor substitute for their airplane motors, and a high viscosity Diesel engine oil, suitable to the operation of the submarine power plants. It is believed by some electro chemists that the unsaturated hydrocarbon molecule is, by the treatment (polymerization), increased 10 times.

New Processes Open to Trade

While it is obvious that the originators of new processes must reap the rewards of their labor, it is also obvious that no system will be tolerated that would give to any one plant the monopoly of the improvements. Nor has there been any attempt at such monopoly. The Burton process, though controlled by the Standard of Indiana, was licensed for use upon a royalty payment and practically all other processes are open.

The wide use of cracking processes, and improvements in quality of gasoline and lubricants, has made possible the expansion of the refining industry to meet present-day requirements. And, what is more important, it has resulted in a general level of quality, which standardized engines demand. For in all the refinements and improvements of motors, which the various automobile manufacturers have brought out, they have not attempted to proceed upon any plan which would require variations in specifications for either fuel or lubricants. We may say that whatever the type of motor, or lubricating system, any refiner may under modern conditions with almost any quality of crude, produce gasoline and oil suitable to all requirements.

The excessive load of distribution costs has not, therefore, been made necessary by any diversification of engine requirements, or refinery methods. It is easy to say that the problem will work itself out; that many filling stations are not paying and that they therefore will go out of business, and leave those that are profitable to dominate the field. But the tendency does not disclose an immediate arrival at such a solution. For the refineries are buying up filling stations which are not profitable to jobbers, as an outlet for their product.

Will Not Tolerate Useless Expense

The great cry in the oil industry is that the Government, both state and national, keep its hands off the business. But unless the leaders in the industry work out its problems in a satisfactory manner, regulation of the most drastic nature may be expected. Any unnecessary load upon the cost of so widely used a commodity as gasoline will not be tolerated. And justified criticism cannot be answered by generalities or by specious arguments. To say that free service, such as oiling, free water, free air and road conveniences are the result of competition among distributors will not satisfy if it be shown that four times that service is offered as is required. For however much the matter be enveloped in a cloud of words, the public understands that that service must be paid for by the purchaser of gas at the pump, and that with every gallon of gas, the public is wasting the money that goes into the overhead maintained by useless stations.

The Effect Upon Oil Financing

The railroad business 40 years ago was economically wasteful, and the methods of expansion entailed still more waste. Duplication of lines between shipping points entailed useless expense for separate rights of way, city terminal facilities, dispatching and auditing systems, in fact, the use of capital without corresponding return. But it was a private business, and the old theoretical law of increased service through unregulated competition was said to apply. In the race for business secret rebates, ruinous passenger rates, unnecessary service, became the rule. Then came the Interstate Commerce Commission, the Railroad Rate Acts and Government control took the place of private ownership. The faults of Government control can easily be pointed out. But whether the north and south transportation systems of the country would have survived unregulated private ownership may be questioned. Certainly, however, the short period of complete Government control made possible by the war, has demonstrated that absolute Government ownership is no better than absolute private ownership, if indeed as good.

Probably a system of co-operation among the enlarging railroad systems 30 years ago might have saved the railroads a period of depression, which undoubtedly was a contributing factor to general industrial stagnation. For the period of readjustment, consequent upon the Hepburn Act, undoubtedly slowed up business. It is no coincidence that railroad securities slumped during this period, and that they are just now emerging from that slump. Investing capital was unwilling to finance them during this uncertain time, and many of the major lines were starved into receivership, and the minor lines forced into bankruptcy.

To say that the oil business is facing the same period may be to say too much. Yet the investing public seems to be hesitant about putting its money into the oil companies. In a major bull movement, such as has been present on the stock exchange since the Coolidge election, the oil shares have lagged, while the business itself has vastly improved. It has been suggested that the large distribution of oil securities which took place some time ago, was in anticipation not of present, but of future conditions. That is, as the large banking houses prior to the period of railroad regulation, unloaded on the public, before the regulation actually was put in force, a similar condition exists today. One cannot say that this is so, but there is some obscure reason for the stagnation of oil securities not readily apparent other than the cost of financing.

Governmental regulation of the railroads came not from any spectacular event, such as the corner in Great Northern, nor the attempt of the Gould interests to extend the Wabash into Pittsburgh or to build the Western Pacific; but from the accumulation of many thousands of unjust freight tariffs, rebates and drawbacks, and from the uneconomic duplication of service in many isolated localities. It was the system of accumulating useless costs; of loading transportation with charges that brought no return that made unregulated private ownership impossible. The thing simply went on without any large spirit of co-operation from industry, until the investigations of the old Standard Oil and the Packers' Combine, produced the inevitable results.

Branches of Petroleum Industry Related

It may be that the oil industry will not profit by the lessons of economic history; that there can be no plan worked out that will strive to improve basic conditions so that regulation will be unnecessary.

Just as every little railroad line years ago looked at its problems solely from the standpoint of its own balance sheet, so the tendency today is for every unit in the oil industry to look at problems solely from the point of view of its current profits. But an industry that is tied together in the production, of a basic material under almost uniform conditions; the manufacture of finished products under almost standardized specifications; the distribution of those products in a manner not necessarily competitive, cannot solve its problems as a mass of unrelated units.

The recovery of oil in the future from fields heretofore considered exhausted will probably be worked out by treating the various fields as the basic units; instead of treating the 40, 80 and 160-acre leases as the basic units. Obviously prospecting and original development must proceed as heretofore. Because no method of determining the actual presence of oil has yet been evolved except drilling; and the hazard of drilling demands that a successful venture shall enjoy the fruits of its risk. But when the flush production has been recovered; and the ordinary pumping methods exhaust the free oil; when flooding is applied to unlock the secondary reserve, then the fields must be worked under some common plan.

New Era for Marketing Oil

The distribution of oil products may almost be said to have entered a state analogous to this secondary method of the recovery of crude. For the flush days of marketing are over. The distributing areas of the country must be treated, not from the viewpoint of the owner of a wayside pump, nor even from the viewpoint of a refiner with a string of filling stations. They must be considered from the standpoint of giving service and quality without waste.

The tendency of refiners to purchase and operate stations in their natural trade territory is a step forward. But it can lead either to intensive price wars with consequent demoralization, or to permanent co-operation. It would be no easy matter to group the retail distributing stations in any one area, under a joint holding company, controlled by the refiners in that area. Yet it may be inevitable.

Systems entailing unnecessary waste cannot be permanent. And not only the possibility of Gov-

(Continued on Page 158)

*Third of a series of articles by a Tulsa attorney who has made a study of the petroleum industry.

Panhandle Crude Stocks Climbing

45 Per Cent July Production Went to Storage in Field. Marland Led in Runs and Shipments. Congestion Worse

AMARILLO, Tex., Aug. 16.—A recapitulation of the oil storage in the Panhandle district as of August 1 shows a total capacity of 3,976,000 bbls. There were 72 big tanks in the field including nine 80,000-bbl. tanks, fifty-nine 55,000-bbl. tanks and two 5,500-bbl. tanks. On August 1 these contained a total of 2,294,115 bbls. of crude oil, leaving room for 1,681,885 bbls. additional oil.

A survey of the pipeline conditions in the field showed receipts by the pipelines of 2,022,625 bbls. in July and deliveries of 1,088,688 bbls., indicating that 933,938 bbls. went into storage in the course of the month.

The five counties comprising the Panhandle Field, Carson, Gray, Hutchinson, Potter and Wheeler, showed a total production in July of 2,053,192 bbls., a daily average of 66,232 bbls. The quantity of oil put into storage during the month was 45 per cent of the total quantity produced.

The Marland Pipe Line Co. led in the quantity of oil run with 805,349 bbls. and led also in the quantity shipped out of the field, 603,096 bbls., which was transported to Ponca City, Okla., and Texas City, Tex. The Prairie Oil & Gas Co., which is expected to become one of the biggest buyers of crude in the district, ran only 4,712 bbls., all of which went to storage. Aside from the Marland organization, the runs and deliveries of the other crude buyers indicated that barely 40 per cent of the crude which was run was shipped out of the territory, or, in other words, about 60 per cent of their crude runs was run to storage.

The greatly increased production in August over that of July and the inability of the railroads to handle the oil will no doubt add greatly to the quantity of crude in storage at the end of this month and increase the percentage of stored crude as compared with total production. The following tables show the production of the field in July and the manner in which the purchasing companies handled the difficult situation:

RECAPITULATION OF STEEL STORAGE
The Texas Panhandle District as of August 1, 1926

District—	No. Tanks	Capacity	Stock	Room
Carson	4—80,000			
	15—55,000	1,145,000	725,892	419,108
Gray	1—80,000			
	18—55,000	1,070,000	746,439	323,561
Hutchinson	4—80,000			
	25—55,000	1,695,000	762,095	932,905
Wheeler	2— 5,500	11,000	8,683	2,317
Potter	1—55,000	55,000	51,006	3,994
Total	9—80,000			
	59—55,000			
	2— 5,500	3,976,000	2,294,115	1,681,885

THE TEXAS PANHANDLE STEEL STORAGE REPORT

Company and Location—	No. Tanks	Capacity	Stock	Room
Carson County				
American Ref. Co., Burnett—One 55,000 leased to Plains.				
Gulf Production Co., Burnett	1—55,000	55,000	50,830	4,170
Gulf Production Co., Panhandle	4—80,000	320,000	253,912	66,088
Humble Pipe Line, Burnett	2—55,000	110,000	3,769	106,231
Marland Oil Co., Burnett	2—55,000	110,000	101,000	8,730
Marland Oil Co., Panhandle—Erecting one 55,000.				
Plains Pipe Line, Burnett	7—55,000	385,000	234,157	150,843
Note: One tank leased from Silk, one from The Texas Company, one from American; one tank burned.				
Plains Pipe Line, Panhandle	2—55,000	110,000	60,420	49,580
W. W. Silk, Burnett—Tank leased to Plains.				
Skelly Oil Co., Burnett	1—55,000	55,000	21,534	33,466
The Texas Company, Burnett—One 55,000 leased to Plains.				
Gray County				
Humble Pipe Line, Pampa	1—55,000	55,000	6,305	48,695
Magnolia Pipe Line, Kings Mill	17—55,000	935,000	740,134	194,866
Two tanks under construction.				
Wilcox Oil & Gas Co., Pampa	1—80,000	80,000	3,823	76,177
Hutchinson County				
Coble-Whittenberg, Block Y—One 55,000 under construction.				
Gulf Pipe Line, Spearman	4—80,000	320,000	77,936	242,064
Erecting four 80,000 tanks.				
Humble Pipe Line, Block Y—Tank site.				
Japhet & Coon, Block Y	1—55,000	55,000	None	55,000
Marland Oil Co., Block Y	6—55,000	330,000	214,145	115,855
Erecting two 55,000 tanks.				
Marland Oil Co., Reimer	1—55,000	55,000	None	55,000
Erecting two 55,000 tanks.				
Philtex, Block Y	10—55,000	550,000	412,200	137,800
Erecting four 55,000 tanks.				
Prairie Oil & Gas Co., Block Y	3—55,000	165,000	9,576	155,424
Erecting two 55,000 tanks.				
Plains Pipe Line, Block Y	1—55,000	55,000	36,420	18,580
Roxana Petroleum Corp., Block Y—Erecting two 80,000 tanks.				
Skelly Oil Co., Block Y	3—55,000	165,000	11,818	153,182
Potter County				
Amarillo Refining Co., Amarillo	1—55,000	55,000	51,006	3,994
Wheeler County				
Midwest Exploration Co., Shamrock	2— 5,500	11,000	8,683	2,317

PRODUCTION REPORT
For Month of July, 1926—Daily Averages

Pipe Line—	Counties— Carson	Gray	Hutchinson	Potter	Wheeler	Totals
Bartex	.....	.....	8,542	.....	.....	8,542
Gulf Pipe Line	225	.....	5,706	.....	.....	5,931
Humble Pipe Line	.....	516	122	.....	.....	638
Magnolia Pipe Line	.....	7	9,808	.....	.....	9,815
Marland Pipe Line	1,750	.....	24,229	.....	.....	25,979
Pantex Pipe Line	.....	.....	3,229	57	.....	3,416
Plains Pipe Line	783	.....	7,112	.....	.....	7,895
Prairie Oil & Gas	.....	.....	152	.....	.....	152
Sinclair Pipe Line	.....	2,526	.....	.....	.....	2,526
Wrather Pipe Line	.....	.....	.....	.....	388	388
Totals	2,758	3,049	59,030	57	388	65,232

SURVEY OF PIPE LINE RECEIPTS AND DELIVERIES

Pipe Line Company—	Receipts	Deliveries	Disposition—
Bartex Pipe Line	264,802	60,050	Tank cars to Houston; excess to storage.
Gulf Pipe Line	183,861	12,360	Tank cars to Houston; excess to storage.
Humble Pipe Line	19,778	12,492	Gray County loading rack to tank cars to Houston; excess to storage; Block Y field to storage.
Magnolia Pipe Line	304,389	.....	All to storage.
Marland Pipe Line	805,349	603,096	Tank cars to Texas City, Tex., and Ponca City, Okla.; excess to storage.
Pantex Pipe Line	105,896	105,896	To Amarillo Refining Co., common carrier oil shipped to order of Marland and Philtex.
Plains Pipe Line	245,055	196,733	Tank cars to order of American Ref. Co. of Wichita Falls, Tex.
Prairie Oil & Gas	4,712	.....	To Prairie storage.
Sinclair Pipe Line	78,306	87,582	Tank cars to Houston.
Wrather Pipe Line	10,478	10,478	Tank cars to order of Texhoma Oil & Ref. Co. of Wichita Falls, Tex.
Totals	2,022,626	1,088,688	Excess to storage.

CARSON COUNTY

Company, Farm and Pipeline—	No. Wells	Daily Average
American Refining Co., S. B. Burnett—Plains	4	470
J. E. Crosbie, S. B. Burnett—Plains	2	28
Gates Oil Co., S. B. Burnett—Plains	1	None
Gulf Production Co., S. B. Burnett—Gulf	10	225
Marland Oil Co., S. B. Burnett—Marland	5	831
Marland Oil Co., S. B. Burnett-A—Marland	3	919
Marland Oil Co., S. B. Burnett-B—Marland	1	None
Silk, Bullington, S. B. Burnett—Plains	2	66
Skelly Oil Co., S. B. Burnett—Plains	2	89
The Texas Company, M. C. Burnett—Plains	4	79
The Texas Company, S. B. Burnett—Plains	6	51
Total	40	2,758

Recapitulation by Pipelines

Gulf Pipe Line Co.	225
Marland Pipe Line Co.	1,750
Pantex Pipe Line Co.	None
Plains Pipe Line Co.	783
Skelly storage	None
Total	2,758

Recapitulation by Producing Companies

American Refining Co.	470
Gulf Producing Co.	225
Marland Oil Co.	1,750
Skelly Oil Co.	89
The Texas Company	130
Miscellaneous	94
Total	2,758

GRAY COUNTY

Company, Farm and Pipeline—	No. Wells	Daily Average
Clark and others, Combs-Worley—No. P. L.	1	None
Empire Gas & Fuel Co., Heithholt—Magnolia	1	7
Shamrock Petroleum, Merten—Humble	1	167
Shamrock Petroleum Co., Worley & Reynolds—Humble	1	349
The Texas Company, Brown—Magnolia	1	None
Wilcox-Pampa Oil & Gas, Combs & Worley—Sinclair	1	79
Wilcox-Pampa Oil & Gas, Worley & Reynolds—Sinclair	2	2,447
Total	8	3,049

Recapitulation by Pipeline Companies

Humble Pipe Line Co.	516
Magnolia Pipe Line Co.	7
Sinclair Pipe Line Co.	2,526
Total	3,049

Recapitulation by Producing Companies

Empire Gas & Fuel Co.	7
Shamrock Petroleum Co.	516
The Texas Company	None
Wilcox-Pampa Oil & Gas	2,526
Total	3,049

POTTER COUNTY

Company, Farm and Pipeline—	No. Wells	Daily Average
Amarillo Oil Co., Warwick —Pantex	1	57

WHEELER COUNTY

Company, Farm and Pipeline—	No. Wells	Daily Average
Continental Oil Co., Jackson—Wrather	1	94
Gibson Oil Co., Phillips—Wrather	2	225
Midwest Exploration Co., Laycock—Wrather	3	19
Upham Gas Co., Shelton—Wrather	1	0
Total	7	338

HUTCHINSON COUNTY

Company, Farm and Pipeline—	No. Wells	Daily Average
Amerada Petroleum Corp., G. A. Whittenburg—Plains	1	25
Amerada Petroleum Corp., J. A. Whittenburg—Plains	1	84
American Refining Co., Whittenburg—Plains	1	37
Apex Oil Co., Smith—Marland	1	113
Badger Oil Co., Lewis—Magnolia	1	53
R. G. Barnum, Johnson Bros.—Pantex	1	9
Canadian River, Kingsland—Marland	4	214
Canadian River, Kingsland—Pantex	...	117
Canyon Oil Co., Whittenburg—Plains	2	3,928
Canyon Oil Co., Whittenburg—Magnolia	...	15
Coble-Whittenburg, Whittenburg—Pantex	2	675
Coble-Whittenburg, Whittenburg—Marland	...	344
Coble-Whittenburg, Whittenburg—Plains	...	236
Coble-Whittenburg, Whittenburg—Magnolia	...	90
Cockrell-McIlroy, Smith—Marland	2	1,198
Currie-Phillips, Smith—Plains	1	818
Currie-Phillips, Smith—Marland	...	468
Currie-Phillips, Smith—Pantex	...	517
Derby Oil Co., Whittenburg—Marland	2	725
Devonian Oil Co., Johnson—Marland	2	234
Dixon Creek Oil Co., Smith—Plains	18	746
Dixon Creek Oil Co., Smith—Marland	...	6,925
Dixon Creek Oil Co., Smith—Pantex	...	271
Dixon Creek Oil Co., Smith—Magnolia	...	55
Double Five Oil Co., Cockrell—Marland	1	70
Dunnigan and others, Whittenburg—Plains	1	209
Dunnigan and others, Whittenburg—Magnolia	...	116
Echo Oil Co., Smith—Marland	1	113
Echo Oil Co., Smith—Magnolia	...	40
Empire Gas & Fuel Co., Johnson—Pantex	1	None
Empire Gas & Fuel Co., Johnson (Section 68)—Gulf	1	82
Empire Gas & Fuel Co., Weatherly—Gulf	1	54
Fly-Blackburn Oil, Weatherly—Marland	1	175
Gates Oil Co., Kingsland—Marland	4	305
Golding & Phillips, Hodges—Gulf	1	23
Gulf-Panhandle-Cline, Fee—Gulf	1	159
Gulf Production Co., Cockrell—Plains	1	None
Gulf-Panhandle-Cline, Dial and others—Gulf	11	2,624
Gulf-Panhandle-Cline, Hodges—Gulf	1	23
Gulf Production Co., Whittenburg—Gulf	2	835
Gulf Production Co., Whittenburg-A—Gulf	2	177
Gulf Production Co., Whittenburg-B—Gulf	1	62
Herring-McIlroy, Smith—Pantex	3	54
Herring-McIlroy, Smith—Marland	...	104
W. Scott Heywood, Christian—Marland	1	25
Heywood and others, Cockrell—Magnolia	1	None
Holmes & Huey, Smith—Magnolia	1	200
Hutchinson Co., Smith—Plains	1	25
J. K. Hughes Development Co., Kingsland	7	750
Lucky Ten Oil Co., Smith—Magnolia	1	333
Lucky Ten Oil Co., Smith—Plains	...	18
Lucky Ten Oil Co., Smith—Pantex	...	778
McIlroy Oil Co., Smith—Marland	3	176
McIlroy Oil Co., Smith—Pantex	...	156
McIlroy-Kistler, Smith—Marland	3	967
McKnight & Holmes, Smith—Plains	1	43
McKnight & Holmes, Smith—Magnolia	...	98
McMan Oil & Gas Co., Smith—Magnolia	5	3,407
Marland Oil Co., Johnson-A—Marland	1	74
Marland Oil Co., Weatherly—Pantex	1	11
Marland Oil Co., Whittenburg—Marland	1	63
J. H. Middleton, Weatherly—Pantex	1	31
Midwest Exploration Co., Smith—Marland	3	445
Newby Oil Co., Smith—Magnolia	1	37
New Domain, Christian—Pantex	1	22
New Domain, Kingsland—Magnolia	1	None
Pattison-Lenix, Smith—Marland	1	1,317
J. R. Phillips, Weatherly—Marland	1	21
Phillips-Heywood, Smith—Marland	1	165
Phillips-Heywood, Smith—Plains	...	61
Phillips Petroleum Co., Johnson-Barnum—Bartex	1	96
Phillips Petroleum Co., Johnson-Finklea—Bartex	1	322

(Continued on Page 160)

Many Inquiries On Use of Soda Ash

Operators Seek and Are Given Advice on How to Apply the Experiment for Reclaiming Dormant Production

By Charles E. Kern
Washington Bureau, The Oil and Gas Journal

WASHINGTON, D. C., Aug. 16.—From all the oil fields of the country there are coming questions addressed to the United States Geological Survey, respecting conditions and methods that pertain to the application of the soda ash process for the purpose of increasing production of oil wells. They have called forth explanations of interest to every oil producer.

Widespread interest is indicated by oil producers who are showing a disposition to apply this process to their wells that are gradually slowing down in their output of petroleum. These questions are answered by the Geological Survey and the oil industry generally should know that there exists here a most helpful information bureau by which they may receive free of charge friendly advice from the highest authority from which that advice can come. Their questions, in fact, are replied to either by Dr. P. G. Nutting or by By George Otis Smith, Director of the Geological Survey, or by both.

A Query From Wyoming

An example of the sort of problems that are sent to the Geological Survey is given in the following letter that comes from Casper, Wyo.:

"We have in this country a rather high hydrostatic pressure in the water surrounding the oil in producing sands in the Rocky Mountain regions. As the pressure is reduced on the crest of the structure as a result of extraction of crude, the water encroaches. As has been brought out by various petroleum engineers this water might be treated by some re-agent to increase its ability to drive the oil from the sand. I would be very glad to hear from you regarding the proper compounds and portions necessary to properly treat waters for increasing their effectiveness to remove the crude."

To the foregoing letter the following answer was given:

"The Geological Survey has frequently advised producers and petroleum engineers as to methods of increased recovery indicated by experiments in this laboratory. This is done with the understanding that the results of tests be reported to the survey to assist in the solution of the more general problems in recovery.

"When edge water already contains dissolved salts of strong bases and weak acids in considerable quantity (say 1 per cent of saturation) and in excess of other salts it is not likely that the natural dome drive can be improved upon as regards either speed or cleanliness of drive. When such conditions do not already exist it is recommended that liberal amounts of strong solutions of sodium carbonate be introduced into or just in advance of edge water as wells are available. The solution cannot be too strong since it does not react with the oil nor clog the sand pores. Two or five tons of (dissolved) soda ash per well is an ordinary dose in present practice. In case edge water contains a considerable concentration of calcium chloride, soda may be slightly less effective, being partly used up in the lime reaction but its use is recommended even in this case. (Double the amount should be used.)"

To Stimulate Old Wells

From Tidioute, Pa., on April 22 of this year came the following inquiry:

"In putting in 5 or 10 bbls. of rather strong solution how many pounds to the barrel would you suggest?

"This is an old third sand pool which was drilled about 1875. The wells on the hills are about 800 feet deep and the wells in the center of the field have a very coarse and pebbly sand with a thickness of as high as 119 feet. The field was abandoned after being drilled over, until several years ago it was discovered by drilling six wells to a plant consisting of engine set, Guttenberg pumps and power. The flooded field began to produce gas very rich in gasoline content. The gas is only compressed to two pounds and it is reported will deliver as high as nine gallons per 1,000 feet of gas. Heretofore, the field has produced a great amount of water of a rather brackish nature. The wells are pumped steady in order to keep the water down and it has only been a couple of years that the wells would exhaust, some of the wells make a nice showing of oil when drilled in, but always the oil would disappear later. Finally some of the producers started putting about three to four drums of distillate in the wells every three months. The suction is shut off from the pumps for 24 hours and the distillate allowed to remain in the wells for 48 hours before being pumped out. This seems to help the wells wonderfully. It was about 1914 that operations started in this field the second time. One party started last fall to shoot and clean out some of his wells and has met with very good results, one well doing 25 bbls. and is still a nice producer."

40-Foot Sand Body

"The wells I want to treat are 800 feet deep with a sand of 40 feet thickness. They have been drilled for about eight years, and am anxious to try soda solution not in a water drive but to clean the sand of b.s. Both my oil and gas production has fallen off greatly. I believe the soda better than the distillate providing the right amount is put in the well. I might add that this sand has a great back suction or vacuum. After operating a well it will take air as long as left open and it only takes a few hours for the air to travel from one well to another 300 feet away. I believe that in putting the soda in the wells, if given a little vent, the solution would be taken far back into the rock. I will be glad to send you a sample of the oil and some of the sand within a short time. And if there is anything else which I may explain will be very glad to hear from you.

"I will await an answer from you as to what you would consider a strong solution for this sand before trying it."

The reply to the above inquiry follows:

"In preparing soda solution for your wells use as much soda as will dissolve in cold water in an hour with occasional stirring. This will be about 70 pounds of soda to each barrel of water. The exact concentration is of little consequence. As little as 10 pounds per barrel would probably serve about as well as 70 provided it is to be left in but a week or so. From your statements it would appear likely that a systematic drive with soda solution would lead to the recovery of a high percentage of the oil left in the sand."

An Experimenter Writes

It occasionally happens that correspondents writing in to the survey make their own suggestions as to some variation of the general directions for the introduction of a solution into oil wells to increase production. In a case of that kind the following letter was written:

"A concentrated solution of sodium hydroxide will not drive petroleum from oil sands. Diluted down to 0.4 normal (as determined by titration) it drives very well but becomes exhausted before it has driven 10 feet. It is therefore quite useless for practical driving.

"On the other hand, a saturated solution of sodium carbonate (about 20n) drives very well because only about 0.4N of the salt is hydrolyzed and this is just the optimum concentration for best driving. The excess carbonate does not affect the oil but serves as a reservoir for continued hydrolysis. A strong hydroxide solution reacts with the oil, clogging the pores."

Cold Solution Safe

Another letter sent to Bradford, Pa., indicates the nature of the questions that are answered as follows:

"Doctor Nutting of the Geological Survey staff has stated repeatedly that cold solutions of either washing soda or soda or soda ash could not be made too strong and could not clog or otherwise harm any well.

"I wish to call your attention to the fact that soda solutions made up saturated hot and then put into cold wells must deposit some of their soda as crystals since the solubility is only about two-thirds as great in cold water as in hot water. Your operators might well be cautioned against the introduction of solutions saturated at temperatures over 70 to 80 degrees Fahrenheit. The formation of soda crystals in the oil sand is not serious but their removal with fresh water or more dilute soda solution would necessarily interrupt or delay the flooding program."

Producer Tells of Results

From Bradford, Pa., January 20, 1926, came the following inquiry: "As I wrote you we put in something over eight tons

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MARLAND RIG IN CANADIAN RIVER BED, TEXAS PANHANDLE

The great task in connection with this engineering feat was the driving of the piling to insure a stable foundation for the rig. After the levee was constructed around the location and the course of the stream deflected, 40-foot piles were driven into the sand to a clay bed at a depth of approximately 32 feet. This work was started along in March and the difficulty of the job is shown by the fact that the rig builders were unable to begin their part of the work until June 28. Things began moving along faster at this point, however, and on July 18 actual drilling operations were commenced. The company estimates that 50 days will be sufficient to complete the well from this stage, barring unforeseen accidents and providing the quicksand decides not to shift a little and cut off the pipe as it has done in one or two cases. The approximate cost of labor and material during the actual drilling time will run about $100 daily and with the expensive piling added to the other costs this well will probably cost from $75,000 to $100,000.

Geology of the Dominguez Oil Field

Several Features Which Make It of Particular Interest to the Industry. Possibilities of Deeper Formation Outlined

By J. E. Eaton
Petroleum Geologist

The Dominguez oil field is located near the center of the Newport-Beverly Hills fault zone which strikes northwest across a deep portion of Los Angeles Basin, California. It is the middle unit of five great oil fields which have contributed much during the past few years toward supplying the world with oil. These fields are, from southeast to northwest, Huntington Beach, Long Beach, Dominguez, Rosecrans and Inglewood. This is also the order in which they were discovered.

There are several features of the Dominguez oil field which make it at this date[1] of particular interest to the oil fraternity. These features are (1) deep horizons which are extremely productive in adjacent fields are at present untested on the higher structure at Dominguez. (2) the wells are by mutual agreement quite uniformly spaced, are located rather far apart, and have approximately an equal amount of penetration, with the result that experiments in gas pressures are being conducted under almost ideal conditions by a number of the most competent petroleum geologists in the world (3) dry gas (Marietta process) will be pumped by the two largest operating companies into producing strata through specially drilled wells which will be so located between other and producing wells that a most accurate and precise gauging of the value of this method of recovering hydrocarbons can be accomplished.

The writer acknowledges the courtesy of the various companies operating at the Dominguez oil field in furnishing information requested. Publications of other geologists[2] and of the California State Mining Bureau[3] have contributed details of adjacent production.

Stratigraphy

The known sediments at the Dominguez Field are Pliocene, Pleistocene and Recent in age.

The rocks penetrated from the surface down by wells drilled in the productive territory, are indicated to be from 50 to 250 feet of drift and terrace gravels (Recent); from 300 to 500 feet of San Pedro (Pleistocene) sands and gravels; over 1,200 feet of Saugus (upper Pliocene and lower Pleistocene) sands, gravels and blue clays; and at least 3,000 feet of Pico (Pliocene) brown, blue and gray sandy and sticky shales with interbedded sandstones. The formations mentioned are separated by unconformities upon the edges of Los Angeles Basin[4], and these unconformities are indicated to be present at the Dominguez oil field.

The Puente formation (Miocene) is exposed upon the edges of Los Angeles Basin unconformably[5] below the Pliocene strata, and doubtless underlies the field at depth. Diatomaceous shales in the Puente formation are considered to be a chief source of the oils produced from overlying strata in Los Angeles Basin.

Structure

The structure at the Dominguez Field is that of an elongated dome or closed anticline striking north, 62 degrees west in the productive territory which is slightly more than three times as long as it is broad. The structure is assymetrical, the steeper dips upon its southwest flank averaging about 30 and those upon the northeast about 20 degrees. The plunge attains a maximum of 7 degrees on the southeast and is somewhat gentler on the northwest .(see Figure 1).

The Dominguez anticline, in common with adjoining structures, was formed by the horizontal component of movements along the Newport-Beverly Hills fault zone[6] which occurred in Pliocene and Pleistocene time. The horizontal drag attending these movement resulted in the forming of nine or more anticlines along the zone of faulting. These anticlines differ in minor details, but all of them conform closely in their fundamental features and relations. They are arranged en echelon, and have strikes which make angles of from 5 to 16 degrees with the strike of the fault zone. The Dominguez and Long Beach anticlines are bowed as a result of the varying proximity of the formative force, the northwestern portions of both structures tending to take an increasingly northerly strike almost parallel with the fault zone, and the southeastern portions a more easterly deflection as the en echelon arrangement of the anticlines removes these portions to greater distances from the more direct influence of the drag. (See Figure 3). The vertical component of the movements was (comparatively) upward on the northeast and downward on the southwest, a feature which contributed toward making the dips steeper on the southwestern flank of both anticlines.

The youngness, geologically speaking, of these anticlines is such that their structure is quite accurately reflected by

(Continued on Page 72)

[1] July 30, 1926.

[2] A. T. Schwennesen, R. M. Overbeck and H. H. Dubendorf, "The Long Beach Oil Field and its Problems"; Bull. Am. Assoc. Pet. Geol., Vol. VIII, No. 4, 1924.

[3] J. B. Case and Robert L. Keyes, "Report On the Long Beach Oil Field"; Vol. IX, No. 4, 1923; Summary of Operations, published by the California State Mining Bureau.

[4] J. E. Eaton, "A Contribution to the Geology of Los Angeles Basin, California," a paper read before the San Francisco meeting of the American Association of Petroleum Geologists, November 20, 1925.

[5] George H. Eldridge and Ralph Arnold, "The Santa Clara Valley, Puente Hills, and Los Angeles Oil Districts, Southern California," U. S. Geol. Survey Bull. 309, 1907.

[6] J. E. Eaton, "Structure of Los Angeles Basin and Environs," Oil Age, January, 1924.

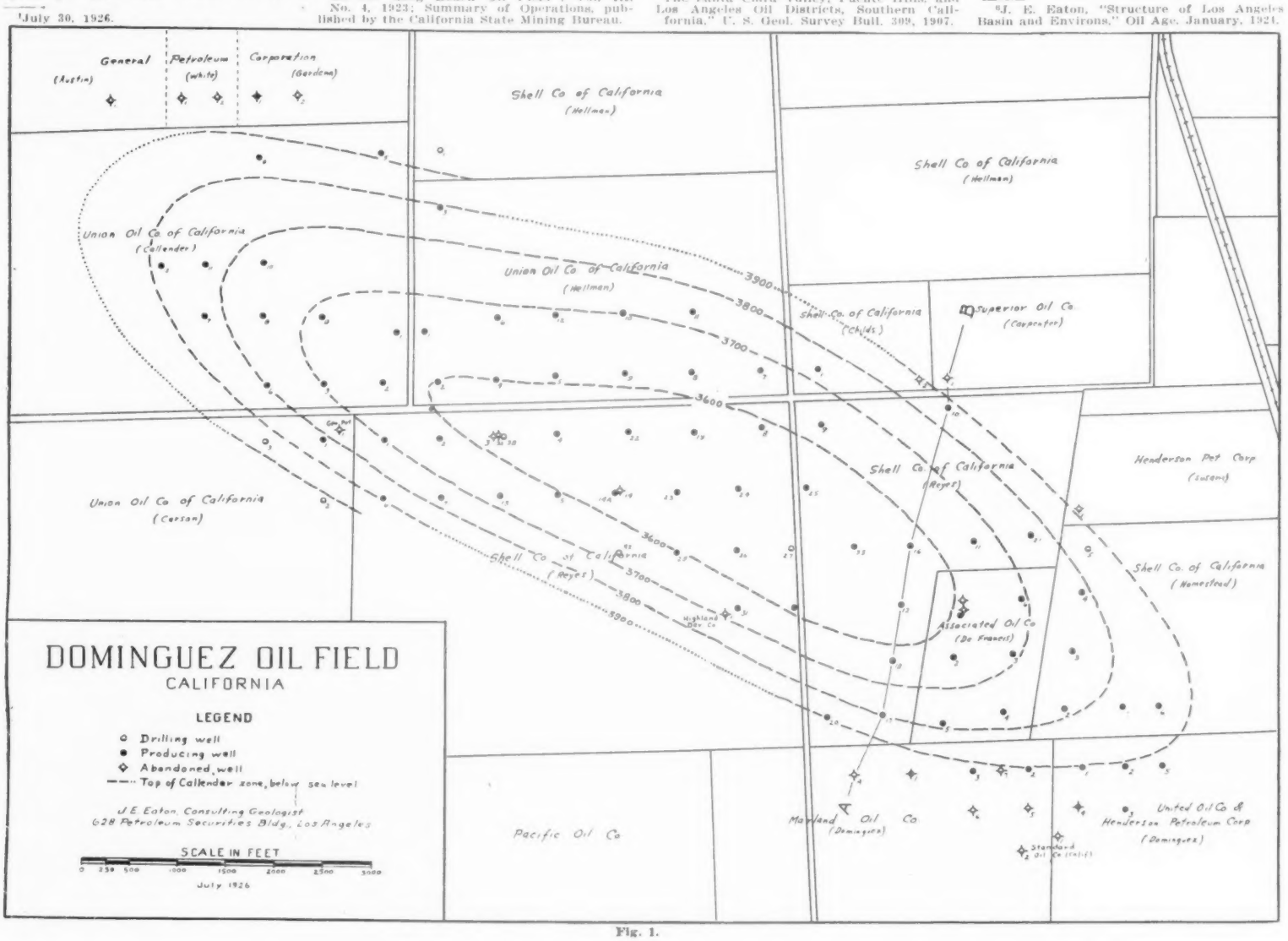

Fig. 1.

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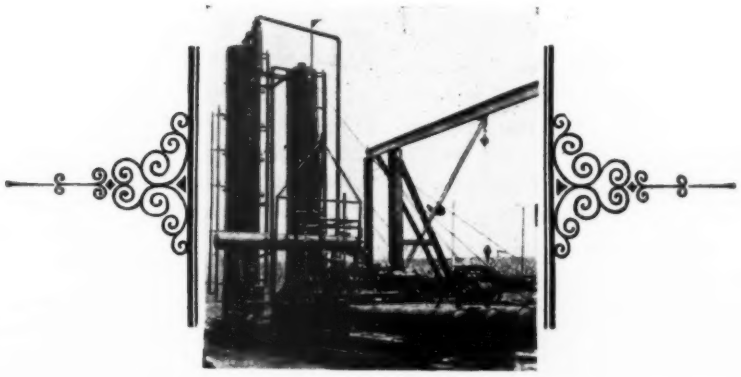

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WITHDRAWALS FROM STORAGE

In the Semi-Annual review issue of The Oil and Gas Journal it was suggested that, despite the Panhandle, the production situation was a great deal better than pessimistic observers were inclined to believe. In fact, so far as it was possible to base calculations on existing conditions, the industry seemed likely to end the year in at least as good position as it closed 1925, a position that prepared us for the remarkably successful period we have had since.

With the publication of the Bureau of Mines figures for the half year permitting a study of the refining and marketing situation this conclusion is strengthened.

The Oil and Gas Journal publishes in the present issue statements on the outlook from W. N. Davis, president of the Mid-Continent Oil & Gas Association, and from Charles E. Parmelee, whose estimates presented before the National Petroleum Association last April attracted wide attention.

While Messrs. Davis and Parmelee differ in degree, they are agreed in the view that the economic situation of the industry is sound and that the close of 1926 will witness a very material reduction in stocks of both crude and refined oils.

One estimate places the gasoline stock at the end of the year at around 1,500,000,000 gallons, the other at around 1,100,000,000 gallons.

At the close of December, 1925, gasoline stocks amounted to 1,648,000,000 gallons. At the end of March, 1926, they were as high as 1,936,000,000 gallons and had declined to 1,713,000,000 by the close of June.

As it is conceded that 45 per cent of the consumption is in the first six months and 55 per cent in the second half of the year, and it is remembered that consumption showed an increase of about 20 per cent in the earlier period and may reach 23 per cent for the balance of the year, the prospective demand is certainly satisfactory.

Mr. Parmelee figures that to supply the demand 96,000,000 barrels more crude would need to be run in the last half of the year. He does not expect to see run more than 30,000,000 barrels of light crude above the first half year with a resulting withdrawal from stock of 15,000,000 barrels of gasoline.

His conclusions are based upon his view expressed before the National Petroleum Association that, contrary to the general impression, the refining industry's difficulty is not overcapacity as measured in gross barrels of possible throughput but the limitations imposed by efficient and profitable production.

Cracking, which has so revolutionized the industry, has brought new economic problems. It has made it essential for refineries to install cracking processes and at the same time has, he says, made it impossible for many refineries to do so.

In short, operation at a profit has been reduced to those complete plants which can adjust their output to those products that are most profitable, to those refineries having special products or established markets securing a better than average return, or to those refineries equipped to produce a maximum gasoline yield.

Obviously this puts aside that portion of refinery capacity not enjoying one or other of these advantages, and to that extent limits probable production.

Viewed in that light overcapacity ceases to be so formidable. Production at a loss is not likely to be long continued.

The one factor that could alter that situation is price. Higher gasoline prices would increase the capacity of production by making it possible for more plants to operate profitably. But with the market condition as it is, the height of the consuming season seeing lower tank car prices than a year ago although from higher priced crude, there does not appear to be much chance of that.

The peculiarity of the situation is that with consumption increasing as it is, and profitable productive capacity limited by price, with every probability of a substantial reduction in stocks by the end of the year, gasoline prices should not reflect these conditions.

On the contrary, there has been a persistent effort in some jobbing quarters to force a reduction of prices, surely the more inexplicable in the light of these conditions.

Such stability as the market has been able to maintain so far has been due largely to the conservative policy so generally pursued in operations. The relations of output and demand have been kept constantly in mind as so frequently advised in these columns. There is a wider adoption of this policy each year and in this lies the chief hope for eventual stabilization of the industry.

Even if the optimistic estimates of Messrs. Davis and Parmelee are borne out and the close of the year sees a reduction in stocks, the same caution should be continued so that the wild fluctuations of other years following overproduction may be avoided in future.

It would be unfortunate, if having become accustomed so long to having such large stocks overhanging the market, any material reduction should send the industry rushing in the other direction in fear of a shortage.

The developments of the past few years have shown that orderly progress will take care of demand. That progress in the refining and natural gasoline branches has been amazing. The interest being shown by the producing branch in air and gas lift, in the soda ash process of recovery and in mining, suggests that within a few years there may be as great a revolution in production methods as there has been in methods of manufacture.

The immediate situation is encouraging. Consumption continues to show a substantial increase each year, one that seems to be safely counted upon. The stocks that seemed so alarmingly great a few years ago are proving less unwieldy than had been feared. Measured in days' supply they are annually becoming less, despite increased recovery and manufacturing efficiency.

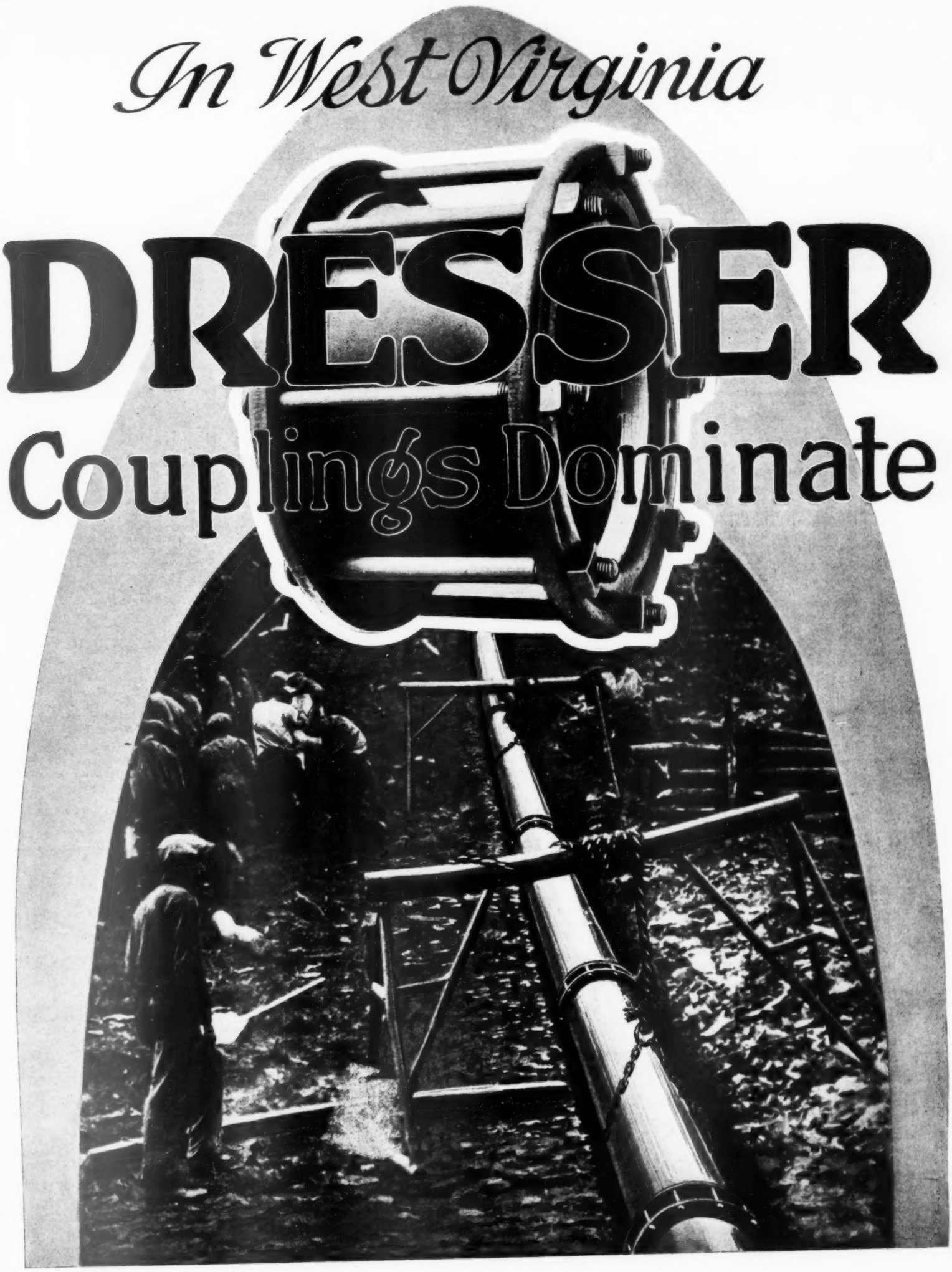
The drill is being profitably employed without having uncovered any peril of overproduction. Normal expansion in demand assures continued expansion of the industry. The problems of internal adjustment should be worked out as successfully as the industry has solved the physical and technical problems it has already mastered.

XUM

In West Virginia

DRESSER

Couplings Dominate



Technical Questions Answered

BY CHARLES K. FRANCIS, PH.D., TECHNICAL EDITOR

The Question and Answer Department of The Oil and Gas Journal is devoted to the manufacturing branches of the oil industry.

Those connected with the refining of crude petroleum, the manufacture of natural gasoline and closely allied industries are invited to submit their problems to Dr. C. K. Francis, technical editor. The department was created for the purpose of aiding managers, superintendents, engineers, chemists and all those engaged in the various phases of plant operation.

Those connected with the marketing departments and others interested in the utilization of petroleum products are also invited to take advantage of this service.

Questions should be submitted in as much detail as possible so as to assure a satisfactory answer.

GASOLINE AND NAPHTHA

What is the difference between gasoline and naphtha? In some parts of the country it appears that the two words apply to identical substances and I should like to get additional information about the words if you have it.—W. C.

Some refiners refer to naphtha to indicate an unfinished gasoline and we have had the experience of hearing naphtha described in such detail that the description would fit the product called gasoline. There is an official definition which has been suggested by the American Society for Testing Materials, and while open to some objections the meaning of the two words is indicated. The products are defined as follows:

Gasoline—A refined petroleum naphtha which by its composition is suitable for use as a carburant in internal combustion engines. Petroleum naphtha—A generic term applied to refined or unrefined petroleum products and liquid products of natural gas, not less than 10 per cent of which distills below 347 degrees Fahrenheit, and not less than 95 per cent of which distills below 464 degrees Fahrenheit, when subjected to distillation in accordance with the current method of test of the American Society for Testing Materials for petroleum products of this nature.

OZOKERITE

What is the nature of ozokerite and how is it obtained?—S. S. E.

Ozokerite is a wax like petroleum substance found in deposits which are often of commercial value as a source of paraffin and other substances. The largest known deposit in the United States is in Utah. It contains the higher hydrocarbons of the paraffin series.

This substance holds an important place in the interesting theory which explains that petroleum may have been formed from diatoms. A brief outline of the theory is that in time a pool becomes filled with diatomaceous bodies over which other organic material is deposited. The organic matter decomposes with the formation of ammonium carbonate, which acts on the oily waxy material of the diatoms setting free carbon dioxide, carbon monoxide and water. Ozokerite is produced under these conditions, and at comparatively low temperatures and pressure is converted into petroleum. Under higher temperatures and pressures, in the presence of sulphur, this material is converted into heavy oils and asphalt.

After washing, filtering and treatment with sulphuric acid ozokerite, which is usually black, yields a clear white wax of considerable value in the arts which is known as ceresine.

BERGIUS PROCESS FOR OIL FROM COAL

What is the cracking process known as the Bergius process?—M. G. W.

This is a foreign process used for the production of oils from coal. The coal is heated in the presence of an atmosphere of hydrogen. At the present time it is reiceiving great attention in Europe because of the high cost of motor fuel, and this process indicates that it may be possible to convert certain coals into motor fuel. Experiments conducted in Germany have indicated the possibilities of the process.

It is reported that the Bergius process is capable of converting 65 per cent of the coal into oil which will yield 25 per cent motor fuel suitable for use in internal combustion engines. A crude oil is obtained which is quite similar to petroleum, and there are other products having properties quite similar to the ordinary petroleum fractions.

About one ton of coal is burned for each ton of coal put through the apparatus. The yield of the fraction similar to gasoline may be in the neighborhood of 15 gallons to the ton.

All processes of this kind are interesting as suggesting possibilities for the treatment of coal deposits, and especially those that may be mined at a low cost.

ASPHALT FROM PETROLEUM

Is asphalt obtained entirely from natural deposits or is it extracted from petroleum in commercial quantities?—G. N. T.

Asphalt and materials containing asphalt, constitute a very extensive part within the group of petroleum products. Large quantities of asphalt are obtained from crude oil and in addition there are numerous roofing materials, binders and paints made.

A recent report from the Bureau of Mines states that over 3,000,000 tons of asphalt were produced from petroleum during the year 1925. Most of the asphalt made from petroleum is produced in the refineries along the Atlantic Seaboard. The total value of the annual petroleum asphalt business is about $42,000,000 exclusive of the special articles made from asphaltic material.

COMPOSITION OF PERUVIAN CRUDE

Does the oil from South America, especially Peru, show properties similar to the crude from North America?—W. J. S.

We have not many analyses of the South American crudes before us, but if our memory serves us correctly, we are under the impression that the oils are in general quite alike. An analysis, recently published in the Petroleum Times from the magazine Peru, may give you the details you wish:

Sample From Northern Peru		
Gasoline	Gravity 56.2	Yield 24.2%
Burning distillate	Gravity 39.2	Yield 24.8%
Gas oil	Gravity 30.4	Yield 14.8%
Lub. distillate	Gravity 23.4	Yield 17.0%
Fuel oil	Gravity 15.6	Yield 15.6%

This oil compares very well with a fair crude from this continent. There are also obtained in South America lower grade crudes.

NATURAL GAS AND ARTIFICIAL GAS

What is the heating value and average price of natural gas as compared with artificial gas?—B. W.

So far as we are informed there are no data published showing summaries from which this comparison may be made. However, it is our general information that natural gas usually has a heating value of about 1,000 B.t.u., and that the price over the United States may average close to 50 cents. While artificial gas may vary to a greater extent than natural gas, it may be safe to assume that the B.t.u. content will not average higher than 600 and the average price will be found to be somewhere near $1.25 per 1,000 feet.

ABSORBING OIL

What do you consider the proper specifications for an absorbing oil?—R. K. C.

That question may raise a few objections from some of our friends. The kind of oil to be used in scrubbing natural gas depend very much on the volume to be handled, the character of the gas and the product to be made, so it will be possible to answer the question only in general terms.

The common absorbing oil is of the mineral seal type which is obtained at the end of kerosene cut before going into gas oil. The gravity runs from about 36 to 40. The initial boiling point is probably the most important one thing to consider. It should be well above the endpoint of the product which is extracted from the gas. The initial boiling point of a good absorbing oil should not be below 450 and 500 is better. The oil should all vaporize not much above 175 degrees higher than the initial boiling point. Of course it should be free from any kind of stock which may decompose and give off objectionable odors. Frequently mineral seal carries a color requirement, but this is not important and may add to the cost without in any way aiding in the work it is to do. Flash point should be at least 75 degrees above the endpoint of the product. Pour and viscosity are not important except as may be required for some particular method of handling and exposure during cold weather.

PETROLEUM COKE

Is it practicable to burn petroleum coke in the powdered form? The question in mind is that the low percentage of volatile matter would present some difficulty. P. L. O.

Probably more coal will be burned in the future after being reduced to powder than in any other form and without doubt much coke will be used in a like condition.

While it is true that the quantity of volatile matter in petroleum coke is not high, and consequently kindling may be slow, this fact is one of the attractive features of the fuel. Volatile matter produces very little energy. It must be remembered too that a fuel in the powdered condition has a much lower kindling temperature than in the lump form. Considerable petroleum coke is being powdered for mixing with powdered coal for the purpose of increasing the heating power of the fuel. Petroleum coke has a much higher heating value than the ordinary coals.

Pulverized fuel is meeting with success and appears to be more convenient and less expensive to handle than the lumps. When properly pulverized, coke, or a coal-coke mixture, may be transported for some distance by means of tubes and pumps in somewhat the same manner as fuel oil. Burners are now made which will handle powdered fuel satisfactorily.

Some progress has been made in burning pulverized fuel in internal combustion engines, so it is possible that powdered petroleum coke, the last cut in the break-up of a crude, may to some extent replace our great motor fuel, gasoline, the first product from the still.

MULTIPLYING GAUGE FOR PRESSURE

It will be appreciated if you will give me some information explaining what is meant by a multiplied gauge and how it works.—I. S. C.

This is probably a reference to gauges which are arranged so that the effect of pressure may be magnified to permit readings to be made in larger figures, and are therefore known as multiplying gauges.

One form of this instrument includes enlarged vessels or chambers which receive the pressure in large volume. These chambers are attached to a U-glass which may be filled with two liquids, which do not mix, of different densities, the heavier one being placed in the lower part of the tube. As the chambers are much larger, so far as surface exposed is involved, than the tube the number read will be equivalent to 'x (specific gravity of heavy liquid—specific gravity of light liquid) times the pressure in terms of inches of water.

Suppose the two liquids in the tube have densities 0.824 and 0.784, then the difference will be 0.40 or 25 times any pressure difference when measured in inches of water, and actual pressure would be obtained by dividing by 25.

Most of the pressure gauges for indicating draft are of the multiplying type but the readings are direct because the instruments have been calibrated in accordance with the physics involved.

AROMATIC AND NAPHTHENE HYDROCARBONS IN GASOLINE

Can you give me a method by which to determine the aromatic and naphthene hydrocarbons in gasoline?—F. F. McK.

A description of these methods is too long to produce here but you will find a complete article on the subject in Industrial and Engineering Chemistry, Vol. 18, No. 4, page 354, April, 1926. Determination of Unsaturated, Aromatic, Naphthene and Paraffin Hydrocarbons in Motor Fuels and Their Automotive Equivalents by Gustav Egloff and Jacque C. Morrell.

A. P. I. GRAVITY AND BAUME

Is the A. P. I. Baume gravity scale convertible to specific gravity by the same formula as the regular Baume scale?—R. B.

There are several Baume scales used in hydrometer work, the two principal divisions being—heavy liquids and light liquids. The adjectives having reference to water. Scales of this kind are more convenient than direct reading of specific gravity because of the whole number and one decimal place indication. The Baume hydrometer for light liquids has been replaced for use in the petroleum industry in the United States by a modification of the Baume scale. This modification is known as the A. P. I. scale and should not be confused with any other.

The formula or modulus used for converting the hydrometer indication to specific gravity is different as the following illustrates:

$$\text{Specific gravity} = \frac{140}{130 + \text{Baume indication}}$$

$$\text{Specific gravity} = \frac{141.5}{131.5 + \text{A.P.I. indication}}$$

Outstanding Oil Areas On Ascendant

Spindletop, Panhandle and Seminole Fields Show Big Wells or Extensions. Nigger Creek Scores a Comeback

The Spindletop Pool in the Texas Coastal Field; the Seminole Pool in Seminole County, Oklahoma, and the Texas Panhandle Field supplied the most important results of development work in the United States in the past week.

A 10,000-bbl. well completed Saturday in the Spindletop area may stay the decline of that pool, which had fallen from 78,500 to 77,000 bbls. a day as an average for last week. Ten deep sand wells in the pool were showing salt water last week.

In the Texas Panhandle, operators continued to bring in new wells regardless of the freight congestion and the crowded condition of the pipelines and the field registered a new high production figure of 94,260 bbls. a day as an average for a week. Twenty-two new wells in the Hutchinson County Field were largely responsible for the increase in output. The Prairie Oil & Gas Co. drilled into a rich spot 2 miles from production in Block Y, in Hutchinson County, and opened up a 2,000-bbl. initial producer flowing naturally. A number of other 1,000 and 2,000-bbl. wells were included among the week's completions. Pulling the tools from the hole caused one Hutchinson County well to show an increase of production to 5,196 bbls. a day.

The Nigger Creek area in Limestone County, Texas, came back with a rush in the past week and it looks at this time as though the companies fortunate enough to have acreage along the fault line will be rewarded by good production. Many of the Nigger Creek drilling wells were located too far east or west of the fault to get into the production, but this could not have been determined without tests. Results in that district have prompted operators to shut down certain drilling wells now definitely known to be outside the shoestring line of production. Moss & Keeling, who were all the time believed to be in line for a producing well completed a big producer in the southeast corner of their lease on the Rossen land, and near it the Transcontinental Oil Co. finished a big producer in No. 2 Rossen. The Godley Oil Co., also looked upon as having a sure shot at production in its No. 1 Rossen, has an 1,800-bbl. well.

The Seminole Pool in Seminole County, Oklahoma, was extended three-quarters of a mile west and 1 mile north into Section 23-9-6, by the Amerada Petroleum Co. The North Braman Pool, in Kay County, Oklahoma, shows a 6,350-bbl. well this week. The Superior Oil Co.'s wildcat, in Section 31-8-6, Seminole County, is showing oil in the Hunton lime.

The Mexican fields report 9 failures out of 15 completions. The 6 oil wells showed an initial production of 6,500 bbls. a day.

A 2,500-bbl. well in the First Wall Creek sand in Salt Creek, Wyoming, was the best well in the Rocky Mountain Field last week, but more important was the opening up of a 30,000,000-foot gas production on a new dome structure on the Colorado-Wyoming line, the well being over the line in Moffat County, Colorado.

Two good wells in the Lillydale district, Clinton County, Kentucky, have created great interest in that part of the State, which is near the Tennessee line.

NEW ZONE IN PINE ISLAND

SHREVEPORT, La., Aug. 17.—Opening up a producing horizon in the Pine Island district in Caddo Parish, Louisiana, Thomason and associates' No. 1 Muslow Oil Co. fee, CNL SE. Section 31-15-21, blew in making 1,000 bbls. of heavy oil from the chalk rock at 1,620 feet. Six-inch casing was set at 1,380 feet. The nearest chalk rock production is on the Dixie Oil Co. lease, 1½ miles to the south. Years ago wells were drilled in that area to deeper horizons but the chalk rock was passed up although it showed oil. The new well's production has not been gauged, conservative estimates place its output at 1,000 bbls. a day.

OKLAHOMA

In Seminole County, the most important well of the week is the Amerada Petroleum Corp.'s No. 1, SE cor. SW NE, Section 23-9-6, which topped the Hunton lime at 3,910 feet and penetrated it 1 foot. The well is flowing about 150 bbls. at its present depth, and 6-inch casing is being run, and tankage erected.

This well extends the limits of production three-quarters of a mile west and 1 mile north, and has a very important effect upon the future of the field. There will be many wells started between the Amerada well and the present limits of the field.

In the Seminole Pool, the Carter Oil Co.'s No. 1 Stewart, SW cor. NW SW, Section 34-10-6, was drilled 6 feet deeper with no improvement in production. This gives the well a total depth of 4,101 feet and it is flowing 3,100 bbls.

In the North Braman Pool, the Comar Oil Co.'s No. 5 Pribboth, NE cor. NW, Section 21-29-1w, is still producing 6,350 bbls. from the Wilcox sand 3,365-84 feet.

In the southern end of Seminole County, the Superior Oil Corp.'s No. 1, Pullatka, SE cor. NE, Section 31-8-6, which had 600 feet of oil in the hole from a formation identified as the Hunton lime, was drilled deeper and the hole quickly filled with oil. The pay was found 4,391-93 feet. This is an interesting development for the south end of the county.

PANHANDLE AND WEST TEXAS

FORT WORTH, Tex., Aug. 17.—The McMan Oil & Gas Co.'s No. 1 Johnson Gray, Section 21, Block 6, Hutchinson County, increased to 5,196 bbls. when the tools were pulled from the hole. Dunnigan and others' No. 1 Johnson, same Section, is flowing 50 bbls. hourly at 2,950 feet and drilling deeper. Prairie Oil & Gas Co.'s No. 13-A, NE cor. NW, same section, was shot with 100 quarts at 2,906-56 feet, and is flowing 200 bbls. daily. Gulf Production Co.'s No. 23 Dial, Section 1, Block 1, flowed 115 bbls. in 15 hours at 2,795 feet. Gulf's No. B-3 Whittenburg, Section 89, Block Z was shot with 230 quarts at 2,999-3,060 feet, and swabbed 215 bbls. in 15 hours. In Upton County, The Texas Company's No. 3 King, a north offset to Dixie Oil Co.'s No. 2 Hughes, flowed 400 bbls. by heads the first 18 hours from 2,046-54 feet, and is shut down. Dixie's No. 3 Hughes has a hole full of oil, and considerable gas at 2,046-71 feet. Independent Oil & Gas Co.'s No. 6 Taylor, show of oil at 2,028 feet; No. 2 Wooley has a show of oil at 2,034 feet. Curtis and others' No. 1 Sealy & Smith, Section 11, Block 2, M. F. Williams land, Coleman County, topped the lime with a show of oil and gas at 2,685 feet.

The Skelly Oil Co.'s No. 1 Johnson, NW cor. Section 20, Block Y, Hutchinson County, got sand at 2,996-97 feet and the well started off at 75 bbls. an hour.

The Yount-Lee Oil Co.'s No. 8 McFadden, in the deep sand section at Spindletop, came in late Saturday flowing 10,000 bbls. initial output.

The same company worked over No. 4 Gilbert in the deep sand area at Sour Lake and increased its flow to 2,500 bbls.

BIG WELL IN PIERCE JUNCTION

HOUSTON, Tex., Aug 17.—The Bashara No. 1 fee, Pierce Junction, was flowing 2,500 bbls. a day with the drill stem in the hole. The gravity of the oil is 27.7 degrees.

HUMBLE PIPE LINE CO. EXTENDING ITS LINES

HOUSTON, Tex., Aug. 14.—The Humble Pipe Line Co. has numerous new lines and extensions of present lines outlined, which in turn reflects the expansion in the fields of Texas. In west Texas in the Reagan County Field, the company is laying 40 miles of 8 and 10-inch pipe between the Kemper pumping station in Reagan County and McCamey in Upton County. In addition the company is installing 25 miles of 6-inch gathering lines in Upton and Crane Counties. The 40-mile extension will enable the company to handle 20,000 bbls. per day.

In addition, the capacity of the trunk line between Kemper station and San Angelo will be increased from 30,000 to 40,000 bbls. per day by means of a loop 15½ miles long of 8-inch pipe. The capacity of the original trunk line of the company between Comyn pumping station in Comanche County and the Hearne station will be increased from 50,000 to 70,000 bbls. by this addition of 8 and 12-inch loops. Hearne is the junction station where the lines from Powell and Mexia tie into the trunk system. The line between Hearne station and Webster tank farm, 25 miles south of Houston, has a capacity of 100,000 bbls. per day.

The company is also laying gathering lines in Hutchinson, Carson, Gray and Wheeler Counties in the Panhandle. Also in Cooke and Montague Counties.

In the Gulf Coast region the company is extending its 8-inch line from the Hull Pool to Spindletop, a distance of approximately 35 miles. This line will have a capacity of from 15,000 to 20,000 bbls. per day.

In the southwest Texas fields the Humble Pipe Line Co. is laying 110 miles of 8-inch line from Bruni tank farm in Duval-Webb Counties to the Gulf at Ingleside, near Corpus Christi. Gathering lines are being laid to the various pools in Webb and Jim Hogg Counties.

FARQUHAR WINS SUIT

PITTSBURGH, Pa., Aug. 14.—A decree directing William M. Henderson of Pittsburgh to redeliver to Jerome G. Farquhar of Pittsburgh 19 certificates representing 50,000 shares of common stock of the Plymouth Oil Co., was handed down by Judge Thomson in the United States District Court. The decree ordered that the stock be held by Mr. Farquhar free from all claims of Mr. Henderson and that the oil company pay the former $187,500 in dividends.

OIL MAN'S CHILD DIES

Susanne Bridges, 18 months-old daughter of B. F. Bridges, Jr., head of the Gypsy Oil Co. land department, was drowned at Colorado Springs, where the family was spending the summer. The funeral will be at Tulsa, Okla.

PREDICTS INCREASED WITHDRAWALS OF LIGHT OIL AND GASOLINE STOCKS

By N. O. Fanning

New York Bureau, The Oil and Gas Journal, 30 Church Street, New York

That expanded gasoline demand this year must be met by increased withdrawals from light oil and gasoline stocks, is the statement made to The Oil and Gas Journal by Charles L. Parmelee, consulting engineer, after a study of the Bureau of Mines figures for the first six months of the year and a consideration of probabilities during the remainder of the year. Mr. Parmelee bases his conclusions mainly upon limitations as to effective refinery capacity, but continuation throughout the year of the present rate of light oil production would still indicate that considerable drafts on light oil stocks or the converted gasoline stocks are in order.

In an analysis of probable supply and demand for 1926 and of refining capacity made before the semiannual meeting of the National Petroleum Association in April of this year, Mr. Parmelee brought out that while it is commonly said that one of the difficulties with the petroleum refining industry in the United States is overcapacity, which is true when measured in gross barrels of possible throughput, the actual case is that when the required finished products are considered, there is indicated an apparent shortage at the present time and for the near future, a large deficiency.

With the first six months' figures available, Mr. Parmelee now estimates that for the year there will be a shortage to be drawn from stock of about 15,000,000 bbls., and at the June rate of light oil production, it would be necessary to draw 45,000,000 bbls. from storage, if refinery runs are increased to the total necessary to produce the required gasoline.

Based on figures to date, the indicated total domestic and export demand for motor fuel (gasoline, natural gasoline and benzol) for 1926 is 318,500,000 bbls., which is practically the highest estimate quoted by Mr. Parmelee early in the year when he said estimates vary from 280,000,000 bbls. to over 320,000,000 bbls., the latter being the estimate of one of the largest oil concerns.

Revolutionary Change

The chief point stressed by Mr. Parmelee is that there is an economic situation incident to the revolutionary change going on in refining methods, particularly the change having to do with cracking, which on the one hand is making it essential for refineries to install cracking equipment and on the other hand is making it impossible for many refineries to do so.

In other words, plants which can operate at a profit are the complete plants which can adjust their output to those commodities which are most profitable, those refineries which by reason of crude supply, special products or established market can secure a better return than the average price differential, and refineries equipped to produce the maximum possible gasoline yield from the crude. Under the present gasoline price structure the skimming plant is beyond the pale, not only as regards its normal operations, but as regards installation of cracking equipment.

The obvious condition reflecting the probable continued heavy withdrawals of light crude and gasoline stocks is a higher gasoline price structure. However, it is notable that the complete and other

(Continued from Page 158)

Panhandle Production Mounts Again

Operators Bring in Many Wells Regardless of Transportation Conditions. Railroads Soon to Increase Shipments

By C. D. Lockwood
Staff Correspondent, Texas Panhandle

In spite of the freight congestion on the Santa Fe and the crowded condition of pipelines and storage facilities, the usual quota of big wells in the Texas Panhandle came in this week and boosted the daily average production several more notches to a new high mark of 94,260 bbls., an average of 307 bbls. per well. Hutchinson County's part in this gain was an increase of 5,530 bbls. from 22 additional producers and it would have been considerably greater if pipeline conditions allowed all of the new wells to flow at their capacity rate. The Devonian Oil Co., for one, had to pinch in its best well recently completed, and a number of other producers are also being held back temporarily.

There is every reason to believe, however, that the freight situation, which is admittedly serious at this time, will be cleared up shortly and that the Panhandle will continue to increase in production for some weeks to come. While this is being written, the Texas Railroad Commission is conducting a hearing with representatives of the Santa Fe and Fort Worth & Denver Railroads as well as oil operators present. The latter road has not participated in the business of moving crude out of the Panhandle heretofore because most of the pipelines from the Hutchinson County Field are laid to Panhandle, where the Santa Fe alone operates.

Another Outlet Promised

The Fort Worth & Denver could easily handle 20,000 to 25,000 bbls. daily by loading the cars at the present loading racks and switching them to the Denver tracks at Amarillo. This will involve a switching charge and there are various other complications, as there always are in the railroad business, but the point is that when the situation becomes too acute it is probable that some such arrangement will be worked out. Furthermore, while both these roads still have much wheat to move, the peak of the season passed this week and the situation from that angle will become easier every day. The Santa Fe has been moving 45,000 bbls. of oil daily but an official of the company estimates that in another 30 days or so it will be able to ship about 60,000 bbls. daily. For these reasons, most Texas oil men are of the opinion that the problem will be solved satisfactorily, although some of the smaller operators may be hard hit.

As an illustration of the extent to which operations have been or have not been curtailed, at the close of last week the field reports for the Panhandle showed just 68 wells shut down for all causes. Only 32 of these were in Hutchinson County where 434 wells were drilling and 26 new locations were added during the week. There were 41 new Panhandle locations altogether. The Dixon Creek Oil Co. had four wells at producing depth shut down for storage or pipeline but that company's production averaged 12,000 bbls. daily for the week.

A New Rich Spot

While interest was centered to a great extent on the problem of handling the constantly growing output of the area already proven, the Prairie Oil & Gas Co. early last week opened another rich spot a couple of miles west of the big producing zone in Block Y. The well which found gusher production was the Prairie Oil & Gas Co. and Phillips Petroleum Co.'s No. 16-A Johnson Brothers, in the NW cor. SW SE, Section 21, Block Y. It flowed 2,000 bbls. from the lime pay at 2,907-90 feet without the aid of a shot. In the NE cor. SE NE, of the same section, the McMan Oil & Gas Co.'s No. 1 Johnson-Martin Gray made 1,770 bbls. flowing from lime at 2,900-42 feet. This is more than half a mile northeast of the Prairie-Phillips well. On the other side of the section the Empire Gas & Fuel Co.'s No. 1-B Johnson, NE cor. NW SW, flowed 175 bbls. in 24 hours at total depth of 2,900 feet, the top of the pay having been reached at 2,862 feet. E. J. Dunnigan and others' No. 1 Johnson, west offset to the Prairie well, was shut down for pipeline after flowing 100 bbls. from lime at 2,900-20 feet.

Field Is Spotted

These wells merely prove the contention of many operators from the beginning of this year's development, that the field will be spotted with rich and lean areas side by side. However, there are apparently more rich spots than the majority expected to find. Between the rich area represented by the McMan and Prairie-Phillips excellent producers and the older area around the Dixon Creek property, the Marland Oil Co. has found equally good wells. No. 2-A Johnson came in flowing 65 bbls. an hour from lime at 2,870-2,932 feet last week and on Sunday produced 2,080 bbls. This well is in the SE cor. NE of Section 20, Block Y. The same company's No. 3-A, in the SW cor. NE, same section, produced 1,020 bbls. Sunday.

A little more than three-quarters of a mile northwest of this well and about half a mile north of the McMan Oil & Gas Co.'s No. 1 Johnson-Martin Gray, the Marland Oil Co.'s No. 5-A Whittenburg, in the Mary Whitley Survey, flowed 2,607 bbls. initially from pay at 2,960-3,004 feet. This well offsets the Williams & Caperton subdivision to the east.

The Gulf Production Co.'s No. 5 J. A. Whittenburg A in the northwest part of the Williams & Caperton subdivision, was shot with 40 quarts at 2,826-46 feet and cleaned itself, flowing 50 bbls. the first hour afterward. Total depth is 2,851 feet. In the southeastern part of the same subdivision, the same company's No. 2 J. A. Whittenburg A was flowing 35 bbls. an hour from total depth of 2,975 feet in soft lime.

Dan A. Japhet extended the older area in Section 11, Block Y, to the southeast with his No. 2 Smith in the NE cor. SE of the section. It was swabbing and flowing 1,000 bbls. daily from 2,821 feet.

Panhandle Completions—Hutchinson County

Amerada Petroleum Corp.'s No. 2 J. A. Whittenburg, NW cor. Section 89, Block Z, swabbed 40 bbls. after a shot of 390 quarts at 2,877-2,958 feet. Center Dome Oil Co.'s No. 1 J. E. Pritchard, Section 1, Block B-4, bridged after a shot of 230 quarts at 2,720-75 feet but is now flowing 75 bbls. Coble Oil Co. and Whittenburg's No. 3 J. A. Whittenburg, in Section 12, Block Y, made 100 bbls. after a 40-quart shot at 2,742-59 feet. It bridged and was being cleaned out.

Dixon Creek Oil Co.'s No. 10 Smith, NE cor. NW NW, Section 11, Block Y, flowed 3,500 bbls. initially from lime pay at 2,744-83 feet; No. 11, a location west, was shut down for pipeline at 2,753 feet and No. 12, two locations west of No. 10, was shut down for pipeline at 2,862 feet; No. 16 Smith, SW cor. NW NE, Section 14, swabbed 50 bbls. at 2,910-82 feet.

E. J. Dunnigan and others' No. 1 Johnson, Section 21, Block Y, flowed 100 bbls. at 2,900-20 feet and was shut down for pipeline connections. The Echo Oil Co.'s No. 3 Smith, Section 11, Block Y, sprayed 100 bbls. at 2,760 feet, where the 6-inch was being set. Empire Gas & Fuel Co.'s No. 1 Johnson B, Section 21, Block Y, was flowing 175 bbls. daily at 2,862-2,900 feet.

Goldeline Oil Co. abandoned the location for No. 2 J. A. Whittenburg H, Section 15, Block X02. J. K. Hughes Development Co.'s No. 17 Kingsland A, in the SE NW SE, Section 6, Block Y, was shot with 120 quarts at 2,925-91 feet and made 100 bbls. afterward. Lucky Ten Oil Co.'s No. 2 Smith, SW cor. NE, Section 11, Block Y, was spraying 50 bbls. daily while drilling at 2,784 feet.

Marland Oil Co.'s No. 1 J. F. Weatherly A, NE cor. SE SE, Section 19, Block Y, flowed 25 bbls. daily at 2,950-3,025 feet. McMan Oil & Gas Co.'s No. 1 Johnson-Gray, Section 21, Block Y, flowed 1,770 bbls. at 2,900-42 feet. Phillips Petroleum Co.'s No. 3 Johnson-Graham, NE cor. Tract 5, Mary Whitley Survey No. 1, was shot with 60 quarts at 2,954-86 feet, total depth 2,998 feet, and made 200 bbls. Phillips Petroleum Co. and Coble Oil Co.'s No. 11 J. A. Whittenburg, in the SW NW, Section 12, Block Y, made 100 bbls. after a shot of 6 quarts at 2,929-60 feet, total depth 2,968 feet; No. 12 swabbed 100 bbls. at 2,894-2,990 feet. Phillips Petroleum Co.'s No. 4 J. A. Whittenburg-Jerry, NE cor. SE SE, Section 13, Block Y, flowed 800 bbls. at 2,820-81 feet. Phillips Petroleum Co. and Pulaski Oil Co.'s No. 2 Johnson Brothers, in the Johnson Brothers subdivision of Mary Whitley Survey, was good for 1,000 bbls. after a shot of 80 quarts at 2,900-31 feet.

Prairie Oil & Gas Co.'s No. 16 Johnson A, NW cor. SW SE, Section 21, Block Y, flowed 2,000 bbls. at 2,907-90 feet. The same company's No. 2 Johnson A, along the north line of Section 4, Block B-4, made 200 bbls. at 2,955-84 feet. Ryan Petroleum Corp.'s No. 2 Johnson, SE cor. Tract 9, Mary Whitley Survey, swabbed 100 bbls. at 2,904-98 feet. Shamrock Petroleum Co.'s No. 2 J. A. Whittenburg, center of Lot 14, Mary Whitley Survey, was shot with 30 quarts at 2,810-40 feet and made 400 bbls. initially, 15 per cent of which was b.s. and water.

Westex Oil Co.'s No. 4 J. A. Whittenburg, C SW NW SE, Section 13, Block Y, was flowing 200 bbls. daily from pay lime at 2,921-63 feet, total depth 2,990 feet. White Eagle Oil & Refining Co.'s No. 1 Johnson-Grace, along the south line of Section 4, Block B-4, flowed 100 bbls. at 2,788-2,911 feet; No. 1 Johnson-Hagy, Section 64, Block 46, swabbed 25 bbls. at 2,707-40 feet; No. 8 Johnson-Hagy, same section, swabbed 50 bbls. at 2,710-45 feet; No. 2 Smith, in Section 11, Block Y, was shot with 320 quarts at 2,900-64 feet and made 200 bbls., 20 per cent water. Total depth is 2,971 feet.

Carson County

GibsonOil Corp.'s No. 1 Witter was temporarily abandoned at 1,015 feet. This is in Section 1, Block 7. Magnolia Petroleum Co.'s No. 2 Burnett, Section 115, Block 5, was abandoned at 2,925 feet when the hole was lost. Marland Oil Co.'s No. 6 Burnett, Section 107, Block 5, flowed 40 bbls. at 3,015-45 feet; No. 4 Burnett A, in Section 116, Block 5, flowed 2,000 bbls. at 3,099-3,133 feet. Gulf Production Co.'s No. 11 Burnett,

(Continued on Page 159)

INDUSTRY IN SOUND POSITION DECLARES PRESIDENT W. N. DAVIS

By William N. Davis
President of the Mid-Continent Oil & Gas Association

There was recently printed in a leading metropolitan paper an article predicting a serious shortage of petroleum. On the other hand for some weeks past in both the trade press and daily newspapers, articles have appeared indicating that the oil industry is in an unsound condition because of overproduction. Because of these conflicting opinions, there has been made a careful survey of the trend of the industry during the past two years and of its present economic position. The following facts have been thus disclosed. The statistics given are for periods ending June 30, 1926.

Total stocks of petroleum and its products have been reduced in the past 12 months more than 17,000,000 bbls. without including the loss of crude resulting from the fire in California.

Stocks of crude oil have been reduced in every month since October, 1924, with the exception of April and May, 1925, when Smackover was at its peak. These drafts have amounted to a net aggregate of 45,089,000 bbls., of which 16,910,000 bbls. occurred in the first six months of this year. The daily average draft for the entire period was 71,000 bbls. and for the first six months of 1926, 93,000 bbls.

Gasoline stocks at the end of June last were approximately the same as on the same date a year before although consumption during the 12 months increased 16.6 per cent. Consumption in the first half of this year increased 19.3 per cent. In terms of June consumption, at the end of the month there was 63 days' supply of gasoline in 1924; 52 days' supply in 1925; and 46 days' supply in 1926. Increase in gasoline stocks during the first six months of this year was 1,546,000 bbls. as compared with 9,042,000 bbls. in 1923; 12,417,000 bbls. in 1924; and 9,541,000 bbls. in 1925.

New Demand Record

It is beyond question that consumption since the first of July has been at a rate substantially in excess of all previous records and although official figures are not available, it is a conservative assumption that stocks of gasoline at this time are less than they were at the same time last year and that consumption is running at least 20 per cent in excess of last year's rate. The above facts clearly show that the industry has been steadily improving its position.

In search for the reason for the gloomy sentiment and predictions we must turn to current production of crude and there we find that the pessimism springs from what it is feared may happen rather than from anything which actually has occurred. It is true that current domestic production has shown a material increase this year, particularly in recent weeks, and according to the American Petroleum Institute estimate, averaged 2,141,250 bbls. during the week ending August 7. At this time last year crude production was 2,171,000 bbls.

Assuming for the last half of this year a 20 per cent increase in gasoline consumption and a reduction in gasoline stocks of 5,000,000 bbls., which would mean that stocks at the end of the year would be 3,454,000 bbls. less than at the end of 1925, the average daily demand for domestic crude is estimated at 2,276,000 bbls. This perhaps is an ultra conservative basis.

It is interesting to note that the gaso-

(Continued on Page 158)

In the refining industry, inability to meet quickly every change in market conditions has been, is, and always will be one of the primary causes of unprofitable operations

Only the Dubbs Cracking Process can save you from such a fate, because it can crack the cheapest available oil, be it gas oil, topped crude, fuel oil, residuum, or crude direct without any change in equipment

Universal Oil Products Company
Owners of the Dubbs Process
310 South Michigan Ave
Chicago, Illinois

New Area Opened and Pools Extended

North Central and West Texas Present Interesting New Aspects But Nothing Sensational. Much New Work

By C. D. Lockwood
Staff Correspondent, North Texas Fields

FORT WORTH, Tex., Aug. 16.—Extensions to the producing area of the Burleson Pool in the Hurdle district of Upton County on the north and east sides; a north extension to the Dunn-Stover Pool in northern Brown County where a couple of dry holes had apparently cut off production; extensions to the Cook Ranch Pool in Shackelford County; a wildcat about 7 miles southwest of the Davis ranch production, in the same county, with oil in the hole, apparently opening a new pool, and a good well in the recently open pool near Thrifty in Brown County, were the high spots of the week in north and west Texas.

In the Hurdle district of Upton County, the Roxana Petroleum Corp.'s No. 1 Della Bowen, east offset to the Marland Oil Co.'s No. 12 Burleson, has the best showing yet encountered in the brown dolomite, about 100 feet above the producing horizon. This well has 600 feet of oil in the hole at 1,982-83 feet and was running casing at latest report. It will be watched with great interest when it is drilled into the regular pay. The Marland Oil Co.'s No. 11 Burleson, in the NE cor. of the 480-acre tract, swabbed 120 bbls. in 10 hours from 2,190-2,212 feet. This is a diagonal offset to the Gulf Production Co.'s tract which was purchased recently for $500 an acre. The Marland Oil Co.'s No. 10 Burleson, along the north line of the Burleson lease, swabbed 215 bbls. in 10 hours at 2,168-85 feet. The Marland Oil Co.'s production from 22 wells on the Burleson, Sanger and Baker leases was 1,989 bbls. Sunday. The Sun Oil Co. now has its sixth well drilling along the north line of its Burleson lease, offsetting Marland's Burleson property on the south. No. 2 came in for 65 bbls. at 2,070-2,140 feet.

Another well in the Upton-Crane district which may provide something to talk about during the next week is the Magnolia Petroleum Co.'s No. 1 O'Keefe (University) in the NW cor. of Section 38, Block 30, University land, southeast of the discovery well. This test topped the lime at 2,913 feet which figures out to be 4 feet higher than the discovery, and the 6-inch casing was set at 2,946 feet. Drilling was resumed late last week and Monday the well was shut down for orders and a control head at 2,966 feet, having encountered a showing of oil.

No further development has occurred on the Humble Oil & Refining Co.'s No. 1 Ricker & Dodson, south of the Dixie Oil Co.'s No. 2 Hughes, and The Texas Company's No. 1-F Union Land Co. is still underreaming the 10-inch. Both of these wells are practically certain to make producers, but it will be interesting and important to find out just how good they are.

Brown County Extension

The Brown County extension referred to is The Texas Company's No. 1 Hickman in the southern part of its 160-acre lease in Section 783, Thomas Benson Survey. It is estimated good for 400 bbls. at 1,178-86 feet. A dry hole offsets it to the south, directly between it and the Dunn-Stover Pool. This makes a lot of territory to the northwest, inside of a circle of dry holes which had showings of oil, look very good.

Near the town of Thrifty, where William Lester's No. 1 Fry opened up a pool some time ago but had bad luck when the rig burned down, Lester's No. 2 Fry, a location south of No. 1 in Section 621, Jesse Chaudoin Survey, made 90 bbls. in the first 12 hours at 1,321-23 feet. It looks like a 150-bbl. pumper. The Amerada Petroleum Corp. has a 40-bbl. well, a diagonal northwest offset to Lester's No. 1.

Cook Ranch Pool Keeps Coming

The Cook Ranch Pool in Shackelford County seems a lot like Tennyson's Brook, it's going on forever. Last Thursday, Roeser & Pendleton brought in No. 8-B-84 for approximately 500 bbls. at 1,311-33 feet. That extended the pool another location to the east on Roeser & Pendleton's full-interest property. Then No. 7-B-84 was drilled in the early part of this week at 1,273-92 feet and looks like it will make a still better well than No. 8. It is a location south of No. 8 and also on the east line of production. Roeser & Pendleton and Marland Oil Co.'s No. A-17-84, on the northwest edge, made 100 bbls. at 1,383-94 feet. This gives the pool a length of three-quarters of a mile, northwest and southeast. The fact that No. A-17-84 had only 11 feet of sand means very little in a way as No. A-6-85 had just 11 feet of pay and was offset by one of the best wells in the pool.

Following is Monday's production in the Cook Ranch Pool:

	Bbls.
Lease B, Section 84	2,830
Lease A, Section 84	2,093
Lease B, Section 85	797
Lease A, Section 85	654

The Humble Oil & Refining Co. has about 1,200 bbls. production in this pool.

Will Stimulate Shackelford

The Shackelford County wildcat referred to is Craig & Morton's No. 1 Davis in the NW cor. of Section 41, Block 12, T. & P. Survey. It had the first sand at 1,435-36 feet with a show of gas, then had a shale break and another sand at 1,439 feet. It was drilled several feet in and had about 500 feet of oil in the hole. This will probably prove a further stimulus to drilling in western Shackelford County where much activity is already getting under way.

In Callahan County, Bradstreet and others' No. 1 Sawyer, center of Section 798, G. M. Vigal Subdivision, had 400 feet of oil and 100 feet of water in the hole at 1,723-37 feet. It will probably make a small producer.

The Turbeville Pool in Archer County, recently opened by the Simms Oil Co. is the scene of considerable activity. The Texas Company brought in a good well there during the past week, its No. 1 Turbeville-C. This well swabbed 375 bbls. at 1,532-38 feet but when put on the pump it made only 175 bbls. and 20 per cent water. The Empire Gas & Fuel Co. bought the west 40 acres of the north 80 acres of Block 29, Harris Club Ranch Subdivision, paying $150 an acre cash and $100 in oil.

An interesting north Texas wildcat is the Phillips Petroleum Co.'s No. 1 Joe Winters, in the SW cor. NW. Section 19, Block 19, T. & P. Survey, in the SW cor. of Jones County. It is down below 2,100 feet and the objective is a sand at 2,970-3,000 feet which was logged in the old Sears well, located 3 miles west of it.

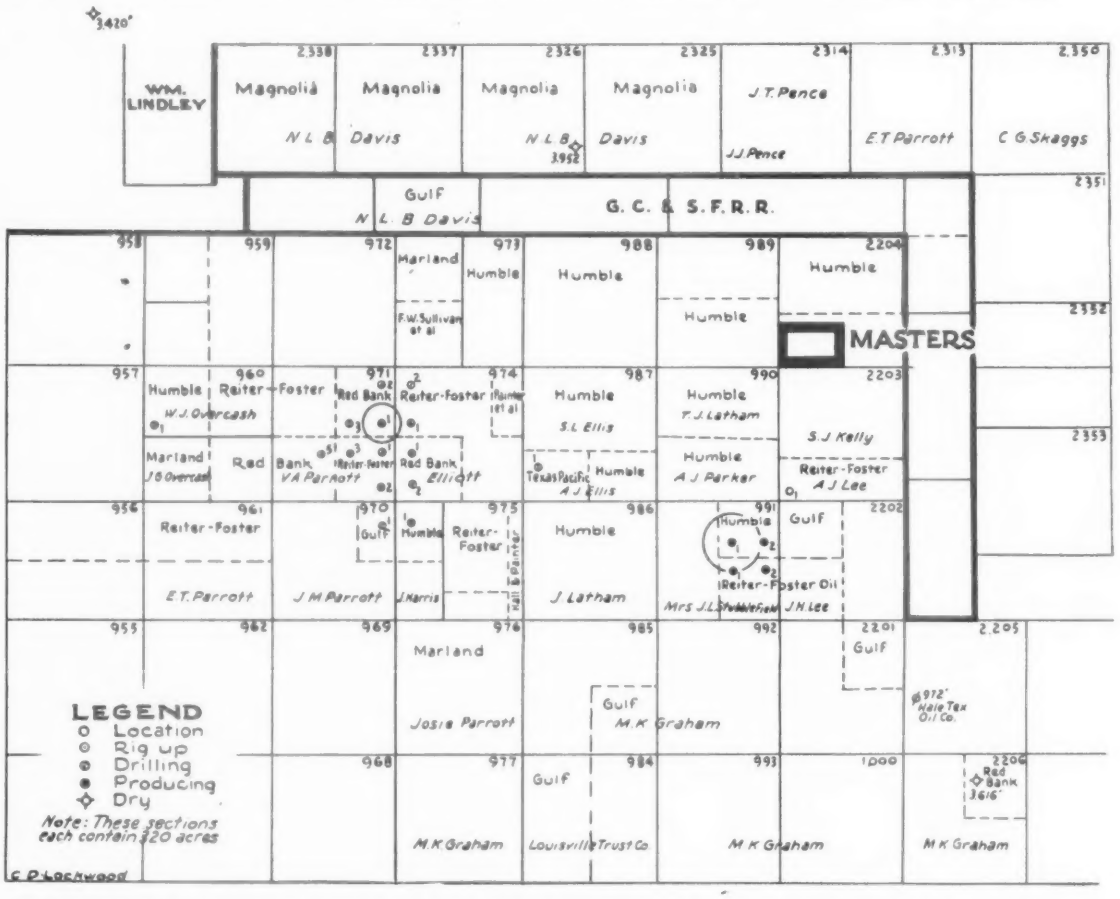
PRODUCTION WEEK ENDING AUGUST 14, 1926
Ranger District

	This Week	Last Week
Brown County	11,435	11,377
Callahan County	4,628	4,628
Coleman County	1,920	1,830
Comanche County	1,880	1,875
Palo Pinto County	456	459
Ranger County	5,560	5,575
Shackelford County	11,122	11,542
Stephens County	11,467	11,508
Total Ranger District	48,468	48,794
Wichita Falls District		
Electra	15,861	16,362
Burkburnett	12,114	12,288
Iowa Park	4,216	4,410
Archer County	29,704	30,568
Clay County	556	558
Wilbarger County	14,230	15,221
Montague County	5,588	5,308
Young County	8,218	8,030
Jack County	229	200
Throckmorton County	2,572	455
Baylor County	195	130
Cooke County	126	227
Total Wichita Falls Dis.	93,609	93,697
West Texas District		
Big Lake Field	27,614	28,290
Crane County	676	305
Crockett County	1,025	1,094
Howard County	202	172
Mitchell County	3,506	3,572
Scurry County	48	52
Upton County	3,800	3,850
Total West Texas Dis.	36,871	37,335
Grand total	178,948	179,826
Decrease	878	

North Texas Completions—Archer County

Alexander & Barnes' No. 1 W. E. Allison was dry and abandoned at 1,703 feet. G. Brown's No. 2 Perkins and others made 55 bbls. at 1,018-34 feet. Marland Oil Co.'s No. 1 Mrs. J. H. Turbeville made 80 bbls. at 1,528-32 feet. Marland Oil Co. and Trahan's No. 1 L. F. Wilson-A was dry and plugged at 1,758 feet. McCarty Oil Co.'s No. 2 Dilliday-Wilson started at 55 bbls. at 1,577-84 feet, total depth 1,588 feet. Payne and others' No. 2 Mrs. J. E. Parrish, 35 bbls. at 1,586-92 feet. Shaw and others' No. 8 Wilson-B, shot with 8 quarts at

(Continued on Page 158)



The Woodson Pool in Throckmorton County, where the Humble Oil & Refining Co. completed a 2,500-bbl. well last week. The large circle marks the Humble's well. The smaller circle marks the Red Bank Oil Co.'s producer completed some weeks ago for 500 bbls. and still holding up to 350 bbls.

Significant facts of decision rendered in favor of the Moore Derrick (Neill patent) by the U. S. Court of Appeals for the Third Circuit.

THIRD INSTALLMENT

(to be continued in next issue)

"Its novelty and utility in structure and results have commanded a prompt and extensive recognition by the art, one witness testifying that his oil company abandoned the use of all wooden and steel derricks when the Neill derrick appeared, and now uses 3000 of them.

"Another witness stated that the other steel derricks he had seen in use were about one per cent. of the number of Neill derricks.

"Another testified that his oil company had in use seven or eight angle iron derricks and five or six hundred Neill derricks.

"Rig-builders testified to the rapidly growing and expanding use of the Neill derricks over other metal derricks; and the licenses showed that it had furnished approximately 165,000 clamps (the central element of the patent) for use upon Neill derricks in all the oil states of the country, except California, and that it had sold derricks to 200 customers widely distributed in East Indies, Russia, Austria, Galicia, Roumania, Trinidad and British Guinea."

MOORE TUBULAR STEEL DERRICKS

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Many New Wells in Southwest Texas

Mirando, Randado and Aviators Pool All Show Good Results. Cole Field Extended. Luling Extension Test Dry

By B. D. Stevenson
Staff Correspondent, Southwest Texas Fields

SAN ANTONIO, Tex., Aug. 16.—Thirteen wells were completed in the Mirando territory of the Laredo district the past week including 2 gas wells and 11 oil wells. One of the gassers was the O'Hern & Seacord wildcat, which came in making 50,000,000 feet of gas and spraying oil. The others were in proven territory. Seven wells in the Bruni tracts of the Aviators Pool added over 2,100 bbls. flush production. One gas well, the Associated Oil Co.'s No. 2-F, a west offset to the Associated-Carson discovery oil well in the Carolina-Texas Field, came in a 35,000,000-foot dry gasser. Three wells in the Randado Field came in estimated at 150 bbls. each, and the Barkley-Meadows and Morgan well, 1½ miles north of the Cole Field, came in for 150 bbls. and opening an important extension.

In the Bruni tracts of the Aviators Pool, the Associated Oil Co. completed No. 2 Bruni on the S half of Block 44 at 1,704 feet and it started at 25 bbls. It is of much more importance than the size signifies, for it is in a part of the field toward the south where it looked as though the field was going to chop off. In the same field, the Rydal and Crown Central companies completed No. 16 on Block 17, swabbing 300 bbls. Murchison & Fain and George M. Ball completed three wells, Nos. 5, 6 and 7, all onthe southeast quarter of Block 13, the first swabbing at the rate of 500 bbls. and the other two at the rate of 400 bbls. each. The National Refining Co. completed No. 4 on Block 43, good for 40 bbls. and possibly indicating the edge of the field to the southeast. Columbia Oil Co. completed No. 10 Puig in Block 77 of the Puig tracts, swabbing at the rate of 500 bbls.

Completions in the Randado Field include the Grayburg Refining Co.'s No. 3 Weil, in Block 15 of Survey 81. Wheelock & Collins' No. 5, on Block 21 of Survey 291, and Maddox and the E. L. Smith Oil Co.'s No. 3 Palacious, in the northern part of Survey 291, each good for 150 bbls. a day initial production.

Extension Well in Cole Field

Barkley & Meadows and William F. Morgan completed an oil well in the Cole Field north of Bruni, 1½ miles north of production and that fact balances the disappointment felt at the failure of the Associated Oil Co. and Usher Carson thus far to make a well out of their east offset to the discovery well in the Carolina-Texas Field. The two fields are about 11 miles apart, the Carolina-Texas Field being in Webb County, northwest of the Cole Field and the Cole Field is mostly in Duval County, just over the line from Webb County.

The Cin-Tex Petroleum Co. opened up the Cole Gas Field to oil production last February when it brought in an oil well on Block 16 of Section 10 of the Cole Petroleum Co. subdivision of the Benavides ranch. Production in the Cin-Tex well was had at 1,781 feet and in the Barkley-Meadows and Morgan well at a little less than that but in the same sand. The well drilled through the oil and into salt water. The bottom of the hole has been plugged off with cement. Barkley-Meadows and Morgan have made a new location 300 feet northwest of their well, and the Gulf Production Co. is moving in on a south offset to the Barkley-Meadows and Morgan well, which is known as No. 1 King-Harper. The Sun Oil Co. and The Texas Company have leases that adjoin the Barkley-Meadows and Morgan lease on the southeast and the well is 750 feet northwest of the Sun Oil Co.'s lease line. The Humble Oil & Refining Co. has acreage nearby on the northwest.

In the Carolina-Texas area, which was also a gas field till the Associated Oil Co. and Usher Carson brought in their discovery oil well, No. 2 "A" Webster. Associated and Carson have moved the tools off No. 1-D and are letting it stand at 2,630 feet, dry at that depth. It is an east offset to the discovery well which is producing at 2,616 feet. The well has been coring and bailing for over a week and while it got a little gas it failed to make a well and got only a very slight oil showing. Associated and Carson have renumbered their wells and No. D-1 was formerly No. G-1. The Texas Company is offsetting it on the north and east and the hole will be allowed to stand till The Texas Company has cored through the sand horizon. There is still a chance that the well may pick up production a little deeper. If The Texas Company succeeds in making a well, the Associated and Carson will move their tools back. The tools are being moved to No. D-4, which is in the southwest corner of the 20 acres to offset a well drilling by Murchison & Fain and now down to 1,400 feet.

The Texas Company is drilling at about 600 to 700 feet in No. 2, which is an east offset to Associated-Carson's No. D-1, and drilling at about 400 feet on No. 3, which is a north offset to it. The Texas Company's No. 1 Webster, a north offset to the Associated-Carson No. D-2 "A", the discovery well is on top of the sand at approximately the same depth as in the discovery well and coring. It should be in early this week. Associated-Carson's No. D-3, which is their south offset to the discovery well, is drilling at approximately 2,000 feet. Associated Oil Co.'s No. 2-F, which is the west offset to the Associated-Carson discovery well, came in a 35,000,000-foot gas well at a total depth of 2,593 feet. Associated Oil Co.'s No. B-2 is drilling at 1,000 feet, 810 feet from the north line and 1,160 feet from the west line of Survey 684. It is a south offset to the Morgan Brothers-Killam-Suladie's well, which is drilling at 300 feet. Magnolia is drilling at 1,100 feet in its No. 1 Webster, a north offset to the Associated's No. F-2 gas weil and a west offset to The Texas Company's No. 1, which is coring the sand. S. O. M. Oil Co.'s No. 1 Webster is drilling at 1,000 feet in a west offset to the Associated-Carson's No. D-3. Morgan Brothers are waiting for water at 1,100 feet in No. 1 Webster on the NE NW NW, of Survey 684, and are waiting water to spud in No. 1 Benavides in Survey 679. Houston Oil Co. is drilling at 1,200 feet in No. 1 Barnsley in Block 15 of Survey 268. Moody Oil Corp. is waiting for water to spud in No. 1 Benavides in Survey 688. Hazlitt-Simmons is standing at 2,000 feet waiting for water in its No. 1 Barnsley in Block 9 of Survey 268. United States Gas & Oil Co., in the northwest corner of Survey 679, that tested salt water at 2,120 feet, has resumed drilling and will go to the 2,600-foot sand. J. H. Winch and others, at 2,579 feet has cored a sand. It is 1 mile north of the discovery well and in the center of Survey 336.

Bruni Tracts in Webb

Moody Oil Corp. tested salt water in its No. 2 Bruni, in the northwest corner of the S half of Block 12, at 1,824 feet. It first tested salt water at 1,761 feet, the regular horizon of the producing wells and then deepened to 1,824 feet where last week it had a good looking core. United Producers, in Block 19 due south of it which also tested salt water at 1,764 feet, the regular horizon and last week had a good core at 1,827 feet, tested salt water also. They undoubtedly mark the eastern limits of the field on the northeast. Rydal-Crown Central's No. 16, in the center of the east side of Block 17, has set casing and No. 15 Bruni, one location away is drilling in with a machine at 1,782 feet. Staley & Wynne have set casing in their No. 16 in Block 18 of the Bruni tracts and are moving in a rig to No. 18, and have derricks up for Nos. 19 and 20 on the same block. Ruthada Oil Co.'s No. 5 Bruni is rigging up in the E half of Block 18, located 1,441 feet from the north line and 150 feet from the west line. Columbia Oil Co. has cored the sand in No. 10 Puig, in Block 77, and is ready to set casing. It has spudded in No. 12 Puig, in Block 76, located 300 feet from the west line and 450 feet from the south line. This is the first location on the second tier of locations from the south line of the block. Sun Oil Co., which got salt water at the regular horizon of the field in its No. 5 Bruni, is now drilling at 1,970 feet, in the N half of Block 44. Associated Oil Co.'s No. 2 Bruni, in the S half of Block 44, is testing a sand at 1,699 feet. Gibson Oil Corp. is coring for the sand in No. 10, on Block 13, the last of its outside locations on the 60-acre lease. Harper and others are rigging up on No. 1 Bruni, in Survey 835. Simms is drilling at 1,542 feet in No. 4 Bruni, in the S half of Survey 835. Lawrence, Neal and others have a derrick up for No. 1 Bruni in Block 41 of the Bruni tracts off to the southeast of the main area of production in the Bruni tracts, which will test the theory of the field running in that direction. National Refining Co. is coring for the sand in No. 4 Bruni, in the E half of Block 43.

Older Mirando Area

In the older part of the Mirando Field north of the Bruni tracts, Alonzo Oil Producing Co. has started moving in machinery for its No. 7 Garcia, the first new drilling it has done in more than a year. It is located in Survey 605 and is 600 feet from the east line and 2,500 feet from the south line. Kirkpatrick & Lucas who abandoned their No. 1 Anderson, a half mile east of production that for a time looked like it had picked up a new sand or would extend the pool, have made location for No. 2 Anderson in the center of Block 5 of the Anderson Subdivision of Puig lands in the Los Ojuelos grant. Jackson-Shankle are coring for the sand in No. 2 Garcia, in Block 22 of Survey 606. Crown Central's No. 10 Garcia, a deep test in the older part of the field where production is usually found at around 1,650 feet, is drilling at 2,400 feet. Crown Central's No. 12, in Block 27 of Survey 606, a test to the regular horizon, is drilling at 900 feet.

Mirando Valley

Immediately north of the old Mirando Valley Pool in Zapata County, O. W. Killam's No. 2 Hinnant, in Block 40 of Survey 307, that failed to make a well in the regular horizon at around 1,450 feet, tested dry at 1,561 feet and is now drilling at 2,630 feet. No. 3 Hinnant, in Block 19 of Survey 307, tested dry at 1,547 feet and tested salt water at 1,755 feet, and has been abandoned.

Charco Redondo

It is understood that arrangements have about been made for a pipeline from the old Charco Redondo Field, in the southern part of Zapata County where there are 40 to 50 wells producing at about 165 feet.

Randado Field

In the Randado Field in Jim Hogg County, Grayburg Oil Co. is completing its No. 3 Weil in Block 15 of Survey

(Continued on Page 156)

HUMBLE'S WILDCAT TEST AT NOLEDA, SOUTHWEST TEXAS, HAS HOLE OF OIL

By B. D. Stevenson

SAN ANTONIO, Tex., Aug. 16.—Featuring the week's efforts in wildcat fields in southwest Texas is the Humble Oil & Refining Co.'s No. 6 Walsh at Noleda in Duval County on the Piedras Pintas salt dome which is standing with a hole nearly full of oil with casing set at 3,594 feet. Eight months ago Humble brought in its No. 4 Walsh at 3,623 feet which has been flowing and pumping practically ever since, making high gravity oil. For eight months operators have been trying to pick up the same sand again and with frequent showings that looked for a time as though they had it but without success until No. 6 topped a sand at 3,594 feet. No. 6 is Humble's second effort. No. 5 which is 450 feet southeast of No. 4, was drilled to a total depth of 4,110 feet and tested dry. While drilling it had several good looking sands from 3,556 feet down but too thin for any one sand to make a well though it set casing and tested in that horizon. Later it plugged back from 4,110 feet and whipstocked through the casing and tested at 3,350 feet and then abandoned the hole, a failure. No. 6 is 364 feet northwest of No. 4 and on the west side of the railroad tract. All are in Survey 185.

Other operators who drilled near the discovery well include J. K. Hughes who drilled No. 1 Peters a half mile north of the Humble's No. 4 Walsh, carrying it to 3,989 feet, where it was abandoned; Grayburg Oil Co.'s No. 1 Halff, a quarter of a mile north of Hughes, which drilled to 4,015 feet where it was abandoned. Neither had any sands or showings of importance. Moody-Seagraves & Morgan drilled a well amounting almost to a direct west offset to Humble's No. 4 and which is 90 feet south of Humble's No. 6. Total depth was 3,620 feet where it was abandoned. It had an important showing of oil in that horizon and was worked with for some time in the belief that it ought to make a well but was finally abandoned early in June. Oil in the Humble's discovery well, No. 4 Walsh, is 42.3 gravity and that in No. 6 was estimated to be the same. No. 4 had sand from 3,597 feet to 3,623 feet, total of 26 feet of sand.

The discovery well same in December 20, 1925, and went dead a month later. It was cleaned out and in cleaning it was discovered that paraffin was responsible for it having stopped flowing. It has since been on steady production. The first 26 days, down to the time it stopped flowing, it made 40,000 bbls. through ⅝-inch choker. Production is now varying somewhat due to paraffin but when cleaned out it comes up to 400 to 500 bbls. a day. The only other test reasonably close to No. 4 and No. 6 Walsh of the Humble now drilling is the Magnolia Petroleum Co.'s No. 1 Speer less than a half mile northwest which is drilling at 3,985 feet according to latest reports and which has had a few showings of oil.

Holden in Jim Hogg

L. M. Holden and associates in No. 2 Jones, several miles east of Hebbronville in Jim Hogg County, has drilled into

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Spindletop Pool Shows Slight Decrease

Of 28 Deep Sand Producers, 10 Are Showing Salt Water, One Making 90 Per Cent. Good Well in Orange Pool

By P. L. McGreal
Staff Correspondent, Gulf Coast Fields

HOUSTON, Tex., Aug. 16.—There are 28 producers in the deep sand area of the Spindletop Pool, covering approximately 20 acres as developed to date, and the table below shows 10 of the total making salt water. This is not a bad record for the coastal country, especially when one considers the close drilling of wells and the limited acreage.

The reduction in the prices for Spindletop crude announced by the pipe lines during the week has had no effect on drilling, but will probably manifest itself later.

Following is a list of the wells in the deep sand section of the Spindletop Pool that show salt water:

Company and Well—	S.W. Pct.	Net Oil Bbls.
Yount-Lee Oil, 1 Davis	70	3,350
Yount-Lee Oil, 3 Gladys	90	170
Yount-Lee Oil, 4 Gladys	30	220
Yount-Lee Oil, 3 McFadden	75	375
Yount-Lee Oil, 5 McFadden	5	850
Gulf Prod., 2 Mann	65	455
Gulf Prod., 1 Weed	6	800
Gulf Prod., 2 Roche	18	950
Sun Co., 1 McLean	40	300
Sun Co., 2 McLean	25	3,100

During the week the Yount-Lee Oil Co. completed No. 3 fee good for 3,000 bbls. initial flow at 3,024 feet with screen set in 40 feet of sand. The Gulf Production Co. finished No. 1 Oakwood 5 acres early in the week at 3,060 feet, flowing 3,600 bbls. initial, 27.7 gravity, 60 feet of sand. It offsets the Rio Bravo Oil Co.'s No. 1 Texas and New Orleans Railway (Southern Pacific) right of way. The Atlantic Oil Producing Co. got a 1,000-bbl. well in No. 1 McLean at 2,950 feet, 23.2 gravity.

The estimated daily average gross production of the pool for the week ending August 14 is 77,000 bbls. compared with 78,500 bbls. last week. Early in the week the gross had dropped to 73,000 bbls., but the new completions and the opening of some of the older wells that had been shut in brought the gross average up.

The estimated daily average gross for all the pools is placed at 170,280 bbls. compared with 173,745 bbls. last week, a decline of 3,465 bbls. for the seven-day period.

The following is the daily average for each pool:

District—	Gross Bbls.
Boling	2,450
Batson	1,375
Blue Ridge	675
Big Creek	2,275
Barber Hill	600
Dayton	75
Damon Mound	800
Edgerly (La.)	840
Goose Creek	11,425
Humble	4,010
Hull	17,200
High Island	115
Jennings (La.)	1,700
Lockport (La.)	4,650
Markham	70
Nash	400
Orange	9,200
Orchard	180
Pierce Junction	3,850
Piedras Pintas	85
Spindletop	77,000
Saratoga	1,500
Sour Lake	7,900
South Liberty	5,175
Vinton (La.)	6,950
Welsh-Anse La Bute (La.)	80
West Columbia	9,600
Miscellaneous	100
Total	170,280

Southwest Fields

The estimated daily average gross for the southwest fields is 46,240 bbls., an increase of 310 bbls. compared with last week. Luling increased 200 bbls., Mirando districts 250 bbls., while Lockhart (Lytton Springs) declined 80 bbls.

Field—	Gross Bbls.
Luling	22,600
*Mirando	16,300
Somerset	2,020
Calliham	110
Rockdale-Minerva	960
Lockhart	4,250
Total	46,240
Grand total for week	216,520
Grand total last week	219,775
Net decrease	3,255

*Includes Webb, Jim Hogg and Zapata Counties and the Cin-Tex district in Duval County.

A total of 23 wells were completed in the coastal region during the week, of which 1 was dry and 3 salt water holes. Six are bailing at the close of the report. The new production is 12,535 bbls., Spindletop contributing 7,600 bbls. of the gross.

The results for the week in each pool is as follows:

District—	Comp.	Prod.	Dry	SW.	Blg.
Batson	2	85	0	0	0
Barber Hill	2	350	0	0	0
Blue Ridge	1	0	1	0	0
Edgerly	1	50	0	0	0
Goose Creek	1	150	0	0	1
Hull	2	1,200	0	0	1
Jennings	1	500	0	0	0
Orange	4	2,200	0	1	2
Saratoga	1	25	0	0	0
Sour Lake	0	0	0	0	1
Lockport	1	250	0	0	0
Vinton	2	125	0	0	1
Spindletop	3	7,600	0	0	0
Miscellaneous	2	0	0	2	0
Total	23	12,535	1	3	6
Last week	24	32,100	5	4	1

Other Completions

In addition to the Spindletop deep sand wells listed, the Gulf Production Co.'s No. 6 Winifree in the Orange Pool came in late in the week at 4,034 feet, flowing 1,500 bbls. The Tillery Oil Co. worked over No. 2 State Land and it flowed at the rate of 600 bbls. per day for several hours and then quit. The depth is 4,050 feet. The Brownie Babbittee Oil Co. worked over No. 4 McLean into a 100-bbl. well at 3,550 feet. The Rex Petroleum Co.'s No. 10 Carbello bailed salt water at 3,150 feet. Its No. 2 B Carbello is bailing at 3,900 feet. The Peer Oil Co.'s No. 1 Mecom is bailing at 3,325 feet.

In the Hull Pool the Humble Oil & Refining Co.'s No. 3 Sterling is making 4,000 bbls. of fluid, 500 of which is oil, at 4,600 feet. The Republic Production Co.-Houston Oil Co.'s joint No. 133 Dolbear is flowing 700 bbls. at 2,575 feet. The Texas Company's No. 1 Hannah fee is bailing at 2,950 feet.

L. G. Marshall's No. 3 Bryan, in the Goose Creek Pool, is pumping 150 bbls. at 4,250 feet, and the Gulf Production Co.'s No. 12 Chapman-Bryan is bailing at 4,400 feet.

The semi-pool at Barber Hill, Chambers County, furnished two nice wells. The Mills Bennett Production Co.-Humphrey Corp.'s joint No. 5 Barrow on the southwest side will make a 250-bbl. pumper at 2,442 feet, with screen set in 33 feet of sand. The same joint interests got a 150-bbl. well in No. 3 Barber on the north side at 2,300 feet. These interests are starting No. 1 Kirby Petroleum Co. sublease.

The Texas Company's No. 303 in the Sour Lake Pool is bailing at 1,300 feet.

The Rio Bravo Oil Co.'s No. 112-B in the Saratoga Pool is making 25 bbls. at 850 feet.

In the Batson Pool, the Gulf Production Co.'s No. 62 Choate is pumping 70 bbls. at 1,050 feet. The Buchanan Oil Co.'s No. 89 Milhome is pumping 15 bbls. at 1,450 feet.

The Gulf Production Co. abandoned No. 7-B Blakely at Blue Ridge at 4,100 feet. Two wildcat tests got salt water. In Brazoria County, the Roxana Petroleum Corp.'s No. 2 Clemens Dome bailed sulphur and salt water at 2,410 feet. In Jefferson County, the Port Arthur Development Co. bailed salt water in No. 3 at Westbury at 2,290 feet. It also showed some gas.

South Louisiana

In the Edgerly Pool, Drysdale-Savoy Oil Co.'s No. 2 Hill will make a pumper at 3,200 feet.

In the Jennings Pool, the Port City Oil Co.'s No. 6 SFS is flowing 500 bbls. at 1,875 feet.

In the Vinton Pool, the Texas Company's No. 3 Vincent is pumping 25 bbls. at 2,300 feet. Marrs McLean's No. 11 Gray will pump at 2,100 feet. The Gulf Refining Co.'s No. 42 C. Vincent is bailing at 3,850 feet.

In the Lockport district, near Lake Charles, Calcasieu Parish, the Vacuum-Gulf companies' joint No. 7 Miller is pumping 250 bbls. at 4,375 feet.

Spindletop Deep Section

The Gulf Pipe Line Co.'s storage for Spindletop is full and it has served notice it cannot handle more than 10,000 bbls. per day in addition to the production of the Gulf Production Co. The Humble Pipe Line Co., laying an 8-inch line east from Hull, a distance of 35 miles, has entered the field as a buyer and is taking what the Gulf company cannot handle. The Humble company ran 37,000 bbls. Friday, through the Sun company's and Magnolia company's lines from the Yount-Lee Oil Co. and Rio Bravo leases. The Texas Pipe Line Co. is taking around 15,000 bbls. per day from the same leases. The Humble Co. is pumping its purchased crude back to Hull storage through the Sun company's 6-inch line and will continue this arrangement until its own extension is in operation.

The Magnolia Pipe Line Co. has been running the Rio Bravo company's production through 2,800 feet of 6-inch line to old storage in the field. It is the first time the Magnolia company has handled any coastal crude. Its refinery requirements have been secured by purchase from some of the other major companies.

Within two weeks the pipeline facilities will be ample to take care of a production of 100,000 bbls. per day, if the pool should reach that figure. Some operators doubt if the gross will ever reach that high on account of the encroaching salt water common to all coastal territory, but all agree that the deep sands will produce an average of 40,000 bbls. per day for a long time.

The Sun Oil Co. announced a cut of 35 cents per barrel, effective Wednesday, following the lead of the Gulf, Magnolia and The Texas Company. Spindletop light runs from $1.15 to $1.55, according to the gravity with a differential of 5 cents on each degree.

Several locations have been made by independent operators west and south of production. The Grayburg Oil Co., formerly prominent in the Sour Lake Pool and now operating in the Somerset and Lytton Springs Fields, has made a location for No. 1 McLean on the west.

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NINE FAILURES AND SIX PRODUCERS MAKING 6,500 BBLS. MEXICO'S WEEK

By George Blardone
Staff Correspondent, Mexican Fields

TAMPICO, Mex., Aug. 13. — The past week in Mexican fields saw some 15 completions, with 9 failures and 6 credited to the production column. Some 6,500 bbls. new production (flush) can be credited to the six producers.

The best well of the week is Mexican Petroleum Co.'s No. 77 La Dicha, in the Ebano sector of the northern fields, which, at 1,805 feet, is reckoned good for 2,000 bbls. In the old Panuco sector, Transcontinental Petroleum Co.'s No. 27 Barbarena is good for 1,500 bbls. at the shallow depth of 1,550 feet. Tampascos Oil Co. (Doherty interests) No. 21 Robles is good for a like volume at 1,743 feet. In the Cacalilao sector, Mexican Sinclair Petroleum Corp.'s No. 129 Lot 2 is good for 600 bbls. at 1,800 feet, a rather unusual well at this depth in this particular lot. La Corona Petroleum Co.'s No. 121 Piedras (old Panuco), is rated 500 bbls. at 1,530 feet.

In the southern fields, Huasteca Petroleum Co.'s No. 81 Tierra Blanca is good for 400 bbls. at 1,808 feet.

The failures follow so far as the northern fields are concerned: La Espuela Oil Co.'s No. 9 Perforadores, Panuco, developed salt water at 1,988 feet. International Petroleum Co.'s No. 25 Tanchicuin is a dry hole at 2,506 feet; and its No. 273, Lot 5, Cacalilao sector, is also a duster at 2,256 feet. Sanchez and others' No. 201 Alamo, Panuco sector, is a dry hole at 2,500 feet. Transcontinental Petroleum Co.'s No. 244, Lot 4 Cacalilao, is a dry hole at 2,030 feet; and its No. 60 Paciencia, just north of Cacalilao, is also dry at 2,400 feet. In the Chapacao-Corcovado, Mexican Gulf Oil Co.'s No. 36-A is dry at 2,270 feet. Over in the Limon, Cia. Pet. Espanola's No. 54 is dry at 2,247 feet.

In the south fields, Mexican Eagle Oil Co.'s No. 9 San Diego drilled into salt water at 1,968 feet.

Panuco-Cacalilao

Field operations in the Panuco-Cacalilao sectors of the northern fields are best described as follows: La Corona Petroleum Co., in its Lot 1 Cacalilao, has No. 157 drilling in shale at 600 feet; No. 158, same, is in gray lime at 1,180 feet; No. 185, Lot 4, is rigging. In the Panuco, its No. 82 San Manuel, the "deep test" is in the Tamasopa at 3,862 feet; No. 122 Delicias is spudding; No. 123 La Polla is in gray shale at 690 feet; No. 124 Ojital is in pink shale at 350 feet; No. 125 Salvasuchi is in gray shale at 1,040 feet; No. 8 Chijol cemented 8-inch casing at 455 feet in gray shale. Cia. Pet. Capuchinas' No. 11, Lot 12 W. Magaubes, is in gray lime at 1,515 feet; No. 4, same, is in a similar formation at 1,445 feet, with the hole full of oil; No. 7-A is in blue shale at 500 feet. International Petroleum Co.'s No. 277, Lot 5 Cacalilao, is spudding. Mexican Sinclair Petroleum Corp.'s No. 95-A, Lot 3 Cacalilao, is in gray lime at 1,740 feet; No. 130-A, Lot 2, is moving in; and No. 14, Lot 1 Camolote, Panuco sector, is rigging. Mexican Gulf Oil Co.'s No. 27 Lopez is in gray lime with an oil show at 1,705 feet; No. 22 Flores is in sand and gravel at 145 feet. Transcontinental Petroleum Co.'s No. 218, Lot 4 Caca-

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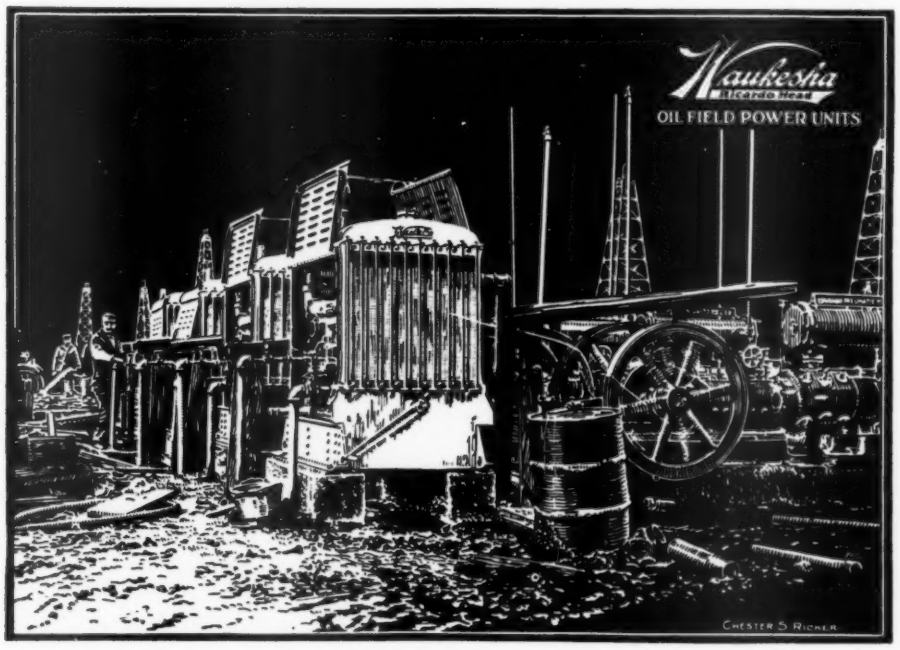

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Georgetown Area is Showing Promise

Acreage Prices Soar in Grant Parish, Louisiana. Urania Shows a 1,000-Bbl. Well. Big Gassers in Monroe Field

By James H. Dameron
Staff Correspondent, Louisiana-Arkansas

SHREVEPORT, La., Aug. 16.—Another wildcat test brought the Georgetown area in Grant Parish, Louisiana, back into prominence while salt water washed away the hopes of wildcatters in other sections. In Georgetown, it was The Texas Company's No. 1 L. Swope, SW cor. Section 16-9-1e, that sent acreage prices soaring in that sector. The test is in 8 feet of rich sand at 1,573-81 feet and casing was cemented at 1,570 feet. The plug is to be drilled the latter part of the week. Cores from The Texas Company's test raised the hopes of operators that a small pool would be developed in that area. The test is 5 miles southwest of the Urania Field in LaSalle Parish. It is 1 mile east of the Gulf's 35-bbl. wildcat well. Half a mile to the north of The Texas Company. Bradley & Cozart's No. 1 Holmes was temporarily abandoned at 1,614 feet. Formations checked high at The Texas Company test and Bradley & Cozart are believed by many operators to have started coring too low and missed the small body of sand. No test was made at the Holmes test.

Bringing out the rich core from No. 1 Swope sent acreage prices soaring. Acreage in the immediate vicinity that was reported to have been selling around $50 an acre were reported to have sold around $400 an acre, half cash and half oil. The Texas Company and the Gulf Production Co. are both reported to have invested around $50,000 in additional acreage in that sector. Other operators were reported to be attempting to buy acreage there.

Salt water drowned the hopes of wildcatters for a deep sand pool in the Sugar Creek district in Caliborne Parish when the Triangle Drilling Co.'s No. 1 Keen, Section 7-19-5, was bailed down and hot salt water rose in the hole and cut off the oil showing. Sand bearing oil with a trace of water was cored at 4,405-06 feet. From 4,406-13 feet the test cored lime. It was bailed Friday and Friday night and was shut down for orders Saturday morning when the salt water showed.

In Cotton Valley Ohio Oil Co.'s No. 3 Holloway was completed for a 3,200,000-cubic foot gas well at 4,411 feet. The gas is exceptionally rich in gasoline content. The deepest drilling test in the district, Ohio's No. 1 Cox, is being delayed while a roller bit is being fished for at 5,957 feet. The test was drilling in red shale when the fishing job developed. In Arkansas, Columbia County's deep test in the Stephens Field, went down as a failure when R. W. Aarnes' No. 2 Brown was junked at 3,590 feet. Tests drilling in the wildcat territory in Union County failed to excite interest in the Nacatoch sand and none of the other Arkansas wildcats were at a depth to command interest.

Urania copped all the glory in the proven fields when a 1,000-bbl. well was brought in there the latter part of the week. It was O. W. Clark's No. 5 Harper, Section 26-10-1e, and on the Winn Parish side of the field, in the Castor Bridge area. The well had sand at 1,488-1,500 feet and is flowing pipeline oil. It is one of the best wells completed in that new field and is the best completion on the Winn Parish side.

Four completions were turned in for the Monroe gas field and the new wells had a combined production of 64,315,700 feet of gas. The largest well was a 26,000,000-foot producer, brought in by the Palmer Corp. Drilling operations in that field showed a light gain last week.

Save in the Georgetown area, wildcats along the Caldwell-Angelina flexure chalked up more failures. Four tests were abandoned along the flexure last week. Several new tests were started and new locations staked during the week brought wildcat operations in that area up a few notches.

Arkansas Production Off

A 3,300-bbl. loss in daily average production in Arkansas sent the district's average tumbling and took one field out of the 10,000-bbl. class. Lisbon, Ark., high-gravity oil field fell around 800 bbls. and went out of the 10,000-bbl. class of fields. Smackover heavy lost more than 1,000 bbls. a day last week. The only field in Arkansas to gain was Stephens. Gains in Urania and Elm Grove offset the slight losses of all other fields in Louisiana and gave the southern State a 160-bbl. gain.

Production by Fields

Louisiana

Bellevue	2,100
Caddo, light	10,200
Caddo, heavy	2,890
Cotton Valley	7,940
De Soto and Red River	4,000
Elm Grove	580
Haynesville	9,525
Homer	5,580
Urania	13,785
Total	56,600

Arkansas

Smackover, heavy	121,610
Smackover light	14,895
El Dorado	7,070
Lisbon	9,545
Nevada	1,850
Stephens	1,865
Total	156,865
Total both states	213,465
Total last week	216,580
Difference	3,115

Urania Field

Urania's six new wells yielded only 400 bbls. combined initial and the majority of that field's completions consisted of abandoned locations. Heading the completions was Hope Oil Co.'s No. 3 Urania, Section 19-10-2e, flowing 200 bbls. from sand at 1,551-58 feet. No. 3 is on the same lease on which a 5,000-bbl. well was completed some time ago and rapidly dropped to a small pumper. In the north end of the field Beckman & Freeman's No. 4-B Urania, Section 7-10-2e, was finished at 1,524-29 feet for a 25-bbl. pumper.

Carlton & Thorpe abandoned location for No. 1 Odom, Section 25-10-1e, and moved the derrick. Dickson and associates moved the derrick for No. 1 Sanders, Section 27-10-1e, and have abandoned the location. Explorers Oil Corp. abandoned locations for Nos. 3 and 4 King, Section 36-10-1e. Hamilton and associates' No. 2 Wright, Section 26-10-1e, is flowing 50 bbls. from sand at 1,548-53 feet. Ab Jones has abandoned location for No. 1 Pendarvis, Section 24-10-1e. Natural Gas & Fuel Corp.'s No. 3-H Urania, Section 18-10-2e, is pumping 10 bbls. from sand at 1,558-61 feet. Ohio Oil Co.'s No. 8 Urania, Section 16-10-1e, was completed at 1,508-18 feet for a 15-bbl. pumper. On the Winn Parish side of the field and in the Castor Bridge area Keene & Woolf's No. 2 Tisdale, Section 26-10-1e, is flowing 100 bbls. from sand at 1,491-99 feet.

Beckman & Freeman's No. 5-B Urania, Section 7-10-2e, in the north end of the field is drilling at 1,510 feet; No. 6-B is being rigged and No. 7-B is a derrick. O. W. Clark's No. 5 Tullos, Section 23-10-1e, is drilling at 1,000 feet. Chal Daniels' No. 1 Uranin, Section 2-9-1e, is a derrick. H. L. Hunt's No. 2 Griswold, Section 2-9-1e, had the sand at 1,495-97 feet and is waiting for a standard rig; No. 3 is drilling at 1,000 feet; No. 4 Griswold, NE SW, is a derrick and a derrick is up for his No. 2 Urania, NW cor. NE SW, Section 2-9-1e. Henry Jones' No. 2 Taylor, Section 23-9-1e, is shut down at 1,530 feet.

Keene & Woolf's No. 1-A Collins, Section 7-10-2e, in the extreme north end of the field was dry in sand at 1,524-28 feet and is going a few feet deeper. Louisiana Oil Refining Corp.'s No. 10-A Tremont, 500 feet west and 125 feet south NW cor. Section 35-10-1e, is being rigged. Louisiana's No. 14-B Tremont, Section 25-10-1e, has sand at 1,520-24 feet and is waiting for a standard rig. A derrick is up for the same company's No. 21-B Tremont, SW NW NW, Section 30-10-2e, and a derrick is up for No. 35-B Tremont, 660 feet west and 150 feet south NE SE NE, Section 25-10-1e. Louisiana's No. 1-C Tremont, Section 35-10-1e, had sand at 1,505-14 feet and is waiting for a standard rig and No. 2-C in Section 2-9-1e is drilling at 818 feet.

Montague Oil Co.'s No. 3 Zenoria, Section 11-9-1e, is waiting for 6-inch to set at 1,501 feet. Location was staked for Natural Gas & Fuel Corp.'s No. 3-A Russell, 500 feet west and 150 feet north SE cor. Section 26-10-1e. Same company's No. 4-F Urania, Section 24-10-1e, had sand at 1,551-55 feet and is waiting for a standard rig. Six-inch was set at 1,555 feet at No. 2-M in Section 19 and No. 3-M in Section 20 is drilling at 200 feet.

T. G. Randle's No. 1 Kinney, Section 7-19-2e, which tested salt water with a show of oil at 1,530 feet, has been temporarily abandoned. Location was staked for Ratcliffe Oil Co.'s No. 1 Tremont, NW SW NW, Section 30-10-2e. Shreveport Oil Corp.'s No. 1 Pendarvis, 250 feet south and east NW cor. Block 13, Section 26-10-1e, is a location. C. S. Thomas' No. 1 Urania, Section 18-10-2e, is drilling at 1,200 feet. Wooten and associates' No. 1 King, Section 36-10-1e, is being cored at 1,500 feet.

Bellevue Field

Six-inch casing was cemented at 402 feet at Autrey Oil Co.'s No. 5 Connell, Section 15-19-11. Gulf's No. 20-A Bliss & Weatherbee, 874 feet south and 474 feet east NW cor. Section 15-19-11, is drilling at 285 feet. Louisiana's No. 31-D fee, Section 15-19-11, is in sand at 391-93 feet and waiting for a standard rig. Six-inch casing was cemented at 361 feet at George W. Wetherbee's No. 13-A fee, Section 15-19-11.

Caddo Parish

W. D. Chew's No. 4 State, Section 34-21-16, is pumping 100 bbls. of fluid, 18 per cent salt water, from 1,831 feet. Dixie Oil Co.'s No. 15 Muslow, Section 7-20-15, was completed at 2,258 feet for a 35-bbl. pumper. Gulf Refining Co.'s No. 244 Ferry Lake, Section 16-20-16, is pumping 20 bbls. from sand at 2,286 feet. The Texas Company's No. 63 Caddo Levee Board, Section 14-21-16, was completed as a gas well at 2,306 feet, making 1,091,000 feet of gas with 640 pounds rock pressure.

Double I Oil Co.'s No. 7 Spell, Section 15-21-15, is waiting for a standard rig at 1,740 feet. Eight-inch casing was set at 1,357 feet at Dixie's No. 17 Muslow, Section 7-20-15. Gulf's No. 245 Ferry Lake, Section 22-20-16, is being bailed to test at 2,262 feet; 6-inch was set at 2,145 feet at No. 247 feet and No. 248 is drilling at 360 feet, both in Section 15-20-16. No. 250 Ferry Lake, Section 29-21-16, is drilling in lime at 2,226 feet. Derricks are up for No. 254 Ferry Lake, 2,340 feet south and 1,120 feet west NE cor., and No. 225 Ferry Lake, 2,340 feet west and 900 feet south NE cor., both in Section 22-20-16. Gulf's No. 6-U Levee Board, Section 9-20-16, is waiting for a standard rig at 2,286 feet and No. 7-U in Section 16 is rigging.

Morris Drilling Co.'s No. 1 Palo, Section 1-20-16, is drilling at 2,118 feet. Six-inch casing was cemented at 2,544 feet at Owl Oil Co.'s No. 2 Bryson, Section 7-17-16. Six-inch casing was cemented at 1,040 feet at Standish Oil & Refining Co.'s No. 8 Allen, Section 23-22-15. The Texas Company's No. 1-B Caddo L. B., Section 22-15-12, is drilling at 350 feet. The Texas Company's No. 48 C. M. L. Co., Section 26-21-15, is drilling

TWO NEW WELLS ADD TO INTEREST IN SAN JUAN BASIN OPERATIONS

By Special Correspondent

FARMINGTON, N. Mex., Aug. 3.—Two new wells and a large increase in the output of the two new wells on Red Mesa structure this week added greatly to the interest shown in oil production in this field. The Marland Oil Co.'s lease on the Chimney Rock structure has been approved by the Secretary of the Interior and this company, it is said, is preparing to enter this field. The two new wells are located up the San Juan River, east of Farmington, one being in the Bloomfield district and the other in the Blanco district. Both are shallow wells. The Hall well on the Red Mesa structure, Section 13-33-12, if placed on the pump would probably yield from 50 to 100 bbls. a day.

It is reported the Continental Oil Co. has started negotiations for a working interest in the well and lease something similar to what it has with Munoz on the Rattlesnake structure and Carleton on the Table Mesa. This has not been officially confirmed. If the Continental gets control and further drilling shows the sands productive, a pipeline will be constructed to the Continental refinery at Farmington, where the crude from this structure, which is reported about 40 Baume, would be valuable for mixing with the high gravity crude from Rattlesnake, some of which tests above 70.

The Erdman well, on the Red Mesa structure, NW Section 23-33-12, is almost prepared to test its productive capacity. It is not probable it will prove as good as the Hall well, but it may be commercially profitable. This well, after encountering a considerable flow of oil, drilled deeper and encountered water. For some time they have been battling to get a complete shut-off of this water flow.

The E. J. Miley interests have secured considerable acreage on the Red Mesa structure and have started drilling with a steel rig and standard tools. They have set 15-inch casing at 300 feet. This well is located on the NE Section 32-33-12, and as it is a considerable distance to the south of the other wells and was located after much geological scouting, its completion will be watched with great interest.

R. M. Smith, who recently took over the E. J. Miley contracts in the Bloomfield and Blanco districts, drilling on No.

(Continued on Page 100)

A $1,464 LOSS ON A 1900-FOOT WELL

That heavy losses can occur even on shallow wells is indicated by this accident. The loss on this 1900-foot well was:

1600 feet 2" tubing	432.00
25 Bbls. Oil per day, 12 days	600.00
12 days labor	432.00
TOTAL LOSS	$1,464.00

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through chalk rock at 1,454 feet. Same company's No. 54 S. P. Harrell, Section 4-21-16, is to be drilled in with standard tools at 2,378 feet. The Texas Company's No. 4 Hicks & Payne, Section 21-21-15, was dry at 2,335 feet and the liner is being pulled preparatory to deepening. The Texas Company's No. 3 Perry, Section 3-20-16, is drilling in shale at 2,240 feet and location has been staked for No. 12 Russell, 660 feet west and 200 feet south center Section 3-20-16.

Six-inch casing was cemented at 1,380 feet at Thomason and associates' No. 1 Muslow, Section 31-21-15. A derrick is up for Tholl Oil Co.'s No. 11 Basharn, NE cor. NW, Section 23-21-15. Unity Petroleum Co.'s No. 1 Crystal, Section 13-21-16, is coring at 995 feet. Arrangements are being made to set 8-inch casing at 1,850 feet at Victor Wenzell's No. 1 Thomas, Section 15-20-15, and arrangements are being made to set 8-inch at the same depth at his No. 1 Wemple, Section 14-20-15.

None of the deep tests in Caddo showed anything during the week. Dixie Oil Co.'s No. 1 Jolly, Section 27-22-15, is drilling in broken lime at 4,210 feet. Gulf Refining Co.'s No. 1 J. M. Byrd, Section 2-19-14, is going through hard lime at 3,575 feet. Gulf's No. 1-E Muslow, Section 35-21-15, is fishing for the 4-inch drill stem at 4,797 feet. Magnolia's No. 16 Dillon, Section 24-21-15, is drilling in lime at 2,921 feet and No. 17 is in lime at 3,424 feet. Magnolia's No. 1 Spell, Section 29-21-15, is drilling in hard lime at 3,530 feet. Magnolia's No. 1 Wiley Bradford, Section 24-21-15, is drilling in hard shale and lime at 3,732 feet. The Texas Company's No. 42 C. M. L. Co., Section 23-21-15, is being swabbed to test at 3,724 feet.

Monroe District

For the second time during the summer the Palmer Corp. has scored in big wells to be completed in the Monroe gas field. Palmer's No. 1 Central, Section 1-19-4e, was completed at 2,160 feet, making 26,369,000 feet of gas with 560 pounds rock pressure. Maury Drilling Co.'s No. 3 McErwin, Section 20-19-4e, was completed at 2,195 feet and gauged 7,704,000 feet. United Carbon Co.'s No. 1 Burton, Section 24-20-4e, was completed at 2,207 feet making 19,538,460 feet of gas with 733 pounds rock pressure. Hatcher & Evans' No. 4 fee, Section 17-19-4e, gauged 6,714,240 feet of gas from 2,172 feet.

Drilling operations in the field showed an increase during the week. Feazel, trustee's No. 1 Archer, Section 22-20-4e, is drilling at 1,890 feet. Surface casing was cemented at 179 feet at Natural Gas Products Co.'s No. 7 Tensas Delta, 4,620 feet west and 1,320 feet north SE cor. Section 2-21-4e. Standard Oil Co.'s No. 1 Cooperage, Section 34-21-3e, is drilling in sandy shale at 675 feet. Six-inch was cemented at 2,115 feet at Central Co.'s No. 1 Kerr, Section 12-9-4. Surface casing was cemented at 375 feet at Gulf's No. 1 West Virginia, Section 17-17-5e. R. J. O'Brien's No. 2 Ray & Green, Section 35-9-4e, is drilling at 1,835 feet.

Ouachita Natural Gas & Oil Co.'s No. 2 D'Arbone, Section 25-19-2e, is drilling at 1,800 feet. Palmer Corp.'s No. 3 Cole, Section 43-10-4e, is drilling at 835 feet. Palmer's No. 1 McHenry, 664 feet west and 660 feet south NE cor. NW, Section 18-19-5e, is rigged and ready to spud. Six-inch was cemented at 2,128 feet at Southern Carbon Co.'s No. 49 fee, Section 35-19-4e. Arkansas Fuel Oil Co.'s deep test, No. 1 Reeves, Section 14-20-1e, is drilling in hard sand at 4,178 feet. Ruston Drilling Co.'s No. 1 Mayfield, Section 30-20-4e, is drilling at 1,320 feet. Southern's No. 5 Grayling, Section 21-21-4e, is being bailed to test gas rock at 2,091 to 2,130 feet.

Webster Parish

Significant in the Cotton Valley Field was the completion of the Ohio Oil Co.'s Trinity test, No. 3 Holloway, Section 23-21-10, which was completed at 4,411 feet, making 3,200,000 feet of rich gas. Of the other deep tests in Webster Humble's No. 2 Cox, Section 22-21-10, is drilling in shale at 3,459 feet. R. W. Norton's No. 1 Josey & Massey, Section 27-21-10, is drilling in lime at 3,725 feet. Ohio Oil Co. has resumed drilling at No. 1 Cox, Section 23-21-10, and it is drilling in red shale at 5,951 feet. In the Shangaloo district Smitherman & McDonald's No. 1 Oakley, Section 29-33-11, is fishing for the drill stem at 4,681 feet. Southern and Ramsey's No. 1 Munn, Section 1-22-10, is drilling in anhydrites at 4,612 feet.

In Cotton Valley, Magnolia's No. 1 J. S. Sexton, Section 32-23-9, is being bailed to test casing cemented at 2,614 feet. Magnolia's No. 2 Tiner, Section 21-21-10, topped the sand at 2,554 feet and is drilling in; No. 3 Tiner is drilling in gumbo at 1,373 feet. A derrick has been built for Ohio's No. 4 Bank of Cotton Valley, center SW NW, Section 22-21-10. Palmer Corp.'s wildcat test, No. 1 Crichton, Section 30-20-8, is drilling in shale and boulders at 1,240 feet.

Union County

A well bordering onto the old type of Smackover wells put the life into Arkansas' field report for the week. It was Hickman and associates' No. 7 Graves, Section 3-16-15, which came in at 2,664-72 feet flowing 1,200 bbls. of fluid, 50 per cent salt water. Gulf Refining Co.'s No. 46 Werner, Section 6-16-16, was completed at 2,247-72 feet pumping 20 bbls. of fluid 30 per cent salt water. Federal Petroleum Co.'s No. 7 Ballard, Section 10-16-15, was abandoned at 2,579 feet with the casing in the hole. Humble will not deepen No. 1-B Lawton, Section 7-16-15. E. M. Jones' No. 6 Murphy, Section 17-16-15, was drilled to a shallow depth and completed as water well for that lease. Southern Crude Oil Purchasing Co.'s No. 1 Rumph, Section 8-16-16, is pumping 50 bbls. daily from sand at 2,602-06 feet. Stewart and associates' No. 5 Murphy, Section 9-16-15, is being produced with compressed air and is making 700 bbls. of fluid, 75 per cent salt water, from sand at 2,438-46 feet. Sure Oil Co.'s No. 5 Murphy, Section 15-16-15, is pumping 75 bbls. of fluid, 75 per cent salt water, from sand at 2,636-43 feet.

Smackover drilling operations dropped off slightly. Ackerly and associates' No. 1 Murphy, Section 1-17-16, is drilling at 1,430 feet. After five months of idleness Bonderant and associates' No. 1 Garner, Section 8-18-12, is being washed to the bottom at 1,896 feet and will resume drilling. Drillers milled through the 4½-inch casing at 2,441 feet and are drilling at 2,600 feet at Federal Petroleum Co.'s No. 9-A Lawton, Section 10-16-15. The drill stem is being sidetracked at 1,800 feet at Gladys Belle Oil Co.'s No. 5-A Cook, Section 16-16-15. Grimes & Jones' semi-wildcat, No. 1 Prothro, Section 3-18-15, tested dry with a show of oil and gas at 2,224 feet and is shut down for orders. Gulf Refining Co.'s No. 39 Hardy-Murphy, Section 5-16-15, is drilling at 895 feet; No. 40 in Section 3 is drilling at 890 feet and a derrick is being built for No. 41 Hardy-Murphy, 1,120 feet north and 660 feet west SE cor. Section 4-16-15. Six-inch was cemented at 2,372 feet at Gulf's No. 22 T. C. Murphy, Section 9-16-15. Gulf's No. 47 Werner, Section 6-16-16, is spudding. The bit and collar are being fished for at 2,380 feet at H. M. Harrell's No. 7 Flenniken, Section 23-17-16.

Other Drilling Operations

Hatfield and associates' No. 3 Ennis, Section 23-17-16, tested dry with a show of oil at 2,205 feet and a showing of oil and salt water was found at 2,235 feet. The test is shut down for orders. F. C. Henderson's No. 3 Smith, Section 18-16-15, is drilling at 2,100 feet. Hollyfield and associates' No. 10 Giller, Section 10-16-15, was plugged back from 2,723 feet to the Nacatoch at 1,990 feet where the casing was shot and the test was dry. The test is shut down for orders at 2,000 feet. Six-inch casing was cemented at 2,684 feet at H. L. Hunt's No. 1 Hammond, Section 27-16-16. Six-inch casing was set at 2,588 feet at Imperial's No. 1 Goodwin, Section 26-17-16, was pulled and the test is being cored at 2,644 feet. Lion Oil & Refining Co.'s No. 2 Hardy-Murphy, Section 9-16-15, tested salt water at 2,409 feet and is waiting for orders. Four and one-half inch casing was cemented at 2,667 feet at Lion's No. 10 Graves, Section 3-16-15.

Magnolia's No. 2 Childs, Section 8-16-16, had sand at 2,590 to 2,608 feet and is waiting for a standard rig; a derrick is up for No. 3, SW cor. NE NE. The liner is being set to test 13 feet of broken sand topped at 2,240 feet at Magnolia's No. 2 Werner, Section 1-16-17. Marine Oil Co.'s No. 1 Epps, Section 21-16-16, is drilling at 2,815 feet. Ohio Oil Co.'s No. 11 Pate, Section 10-16-15, is drilling at 2,624 feet. Peer Oil Corp.'s No. 7 Cook, Section 17-16-15, is drilling at 2,550 feet. Sam Richardson's No. 2-M Murphy, Section 14-16-15, tested salt water at 2,715 feet and 4½-inch casing is being pulled and the hole plugged back.

Simms Oil Co.'s No. 4 H. B. Murphy, Section 15-16-15, is drilling in gumbo at 2,112 feet. Location was taked for Southern Oil Co.'s No. 1 Murphy, SW SE NE, Section 33-16-16. The plug at 2,581 feet is being drilled at Southern's No. 4-B Wells, Section 15-16-15. Standard Oil Co.'s No. 11 McClanahan, Section 6-16-15, is to be put on the beam at 2,574 feet, and casing cemented at 2,105 feet is being bailed at Standard's No. 4 Reynolds, Section 6-18-15. Sun Oil Co.'s deep test, No. 9 Brown, Section 8-18-15, is coring at 3,490 feet. Casing was shot at 2,650 feet at Sunny Jim Oil Co.'s No. 3 Flenniken, Section 9-16-15, and collapsed 16 feet off bottom and the test is waiting for orders.

Nine Wells at Lisbon

Nine new wells were completed in Lisbon and the largest was Gulf's No. 3 Primm, Section 21-17-16, which was completed for a 51-bbl. pumper at 2,131-43 feet. Same company's No. 1 Parker, Section 21-17-16, made 12 bbls. on the beam at 2,132 feet. Eason and associates' No. 2 Mooty, Section 22-17-16, is making 15 bbls. on the pump from sand at 2,120-59 feet and No. 3 is doing 20 bbls. from sand at 2,105-48 feet. Humble's No. 1 Cruse, Section 21-17-16, is a 45-bbl. pumper from sand at 2,096 to 2,119 feet. Lion Oil & Refining Co.'s No. 4-A Mitchell, Section 17-17-16, is pumping 20 bbls. from sand at 2,079 to 2,116 feet. Magnolia's No. 7 Harrell, Section 4-17-16, is good for a 40-bbl. pumper in sand at 2,100-40 feet. Ohio's No. 8 Goodwin, Section 21-17-16, is pumping 25 bbls. from sand at 2,140-84 feet. Wingfield and associates' No. 3-B Slaughter, Section 3-17-16, is pumping 35 bbls. from sand at 2,100-27 feet.

Six-inch casing was cemented at 2,057 feet at Atlantic's No. 3 Ford, Section 3-17-16. Atlantic's No. 6 Goodwin, Section 16-17-16, had sand at 2,117-87 feet, and is waiting for a standard rig. Eason and associates' No. 3 Mooty, Section 22-17-16, is drilling at 410 feet. Guulf's No. 2 Parker, Section 21-17-16, is waiting on a standard rig at 2,124 feet and has 500 feet of oil in the hole; No. 3 is a derrick; No. 4 is rigged and ready to go and No. 1 Patterson, in Section 20, is a rig.: Gulf's No. 4 Primm, Section 21-17-16, is drilling at 974 feet. Six-inch casing was cemented at 2,049 feet at H. L. Hunt's No. 7 Murphy, Section 4-17-16, and a derrick is up for No. 8 H. D. Murphy, CEL NE NE, Section 4. Six-inch was cemented at 2,076 feet at Imperial's No. 3 Primm, Section 21-17-16.

On the Lion Oil & Refining Co.'s Mitchell lease, Section 17-17-16, No. 1-A, NE cor. is a rig; 6-inch was cemented at 2,055 feet at No. 6-A; No. 7-A had sand at 2,115-46 feet and is waiting for a standard rig; No. 10-A, NW cor. NE NE, is a derrick pattern; No. 11-A is drilling at 1,300 feet; No. 16-A is drilling at 250 feet; No. 2-B is being bailed to test sand at 2,151-78 feet and 6-inch was cemented

(Continued on Page 137)

MALJAMAR'S WELL CLEARED OF SHOT AND WILL BE GAUGED IN FEW DAYS

By Special Correspondent

ARTESIA, N. Mex., Aug. 14.—An accurate gauge of the production of the Maljamar well in Lea County can be taken in the next few days as the crew has succeeded in cleaning of the shot hole and is now engaged in driving a lead plug in the bottom of the hole at a depth of 4,140 feet in the hope of shutting off the water. Should this plug fail to do the work it will be necessary to cement.

Five miles to the west of the Maljamar, the Skelly Oil Co. has ordered tanks and high pressure fittings for its No. 1 on the Lynch permit in Section 22-17-31 which has an excellent chance of making a producer. The hole is now below 2,750 feet and the crew is trying to pull the 12½-inch casing which has parted. It is this company's intention to set the 10-inch in the lime before drilling into the red sand as the latter is expected to carry a heavy gas flow.

West of the Skelly test, in Section 33-17-30, the Wooley-Jones' No. 1 on the Beeson permit will be drilled deeper as soon as casing has been set at 3,000 feet. Several other tests will be drilled in the neighborhood of this well which encountered a good sand carrying considerable oil.

On the north end of the Artesia Pool, the Pueblo Oil Co. has spudded a test in the northeast corner of Section 33-17-28 and should it make a producer, 60 additional tests will be drilled according to officials of the company.

The Ohio Oil Co. is preparing to shoot its No. 2 on the New States lease in Section 8-18-28, which after being drilled to a depth of 2,834 feet was plugged back to 2,375 feet.

Henderson-Dexter-Blair have announced they will drill three wells in Lea County. T. P. McDonald has spudded in his No. 1 in Section 22-18-34. A number of other tests will be started before the end of the month.

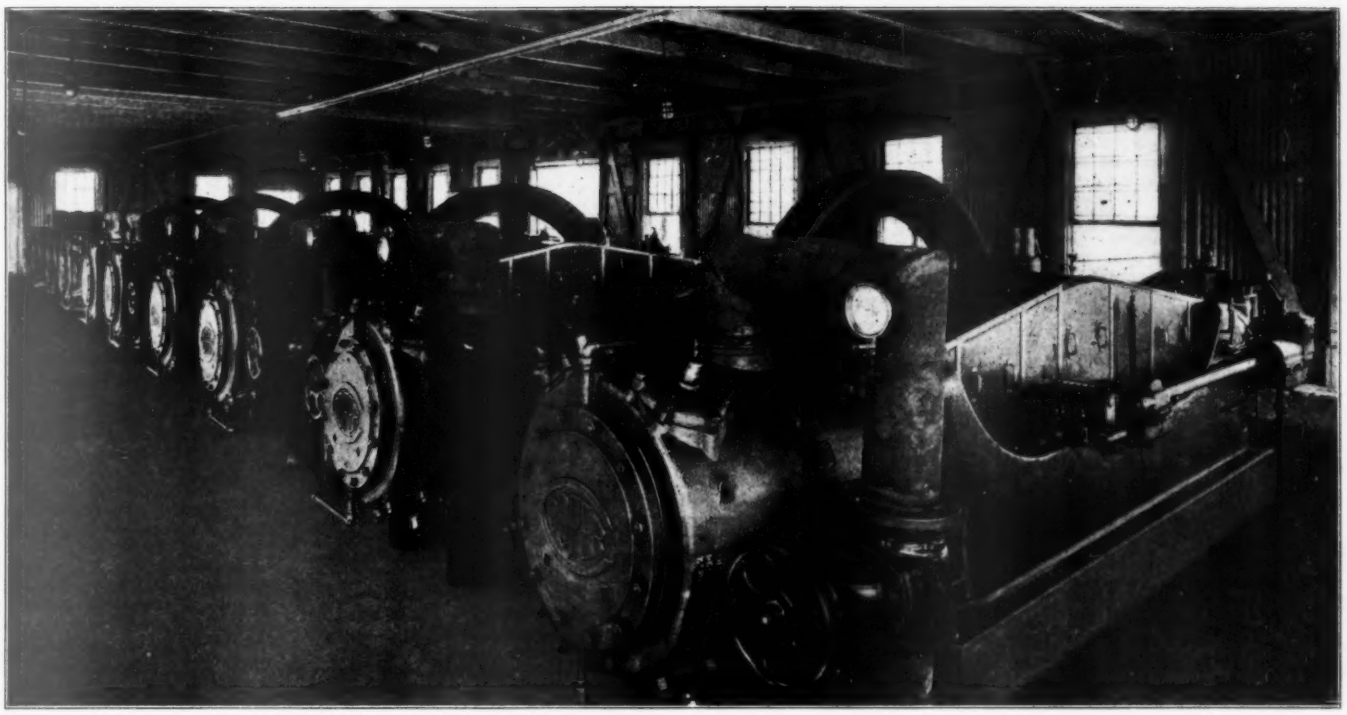
Drilling Operations—Eddy County

Colorado Drilling Co.'s No. 1 Irvin, Section 8-16-27, abandoned, new location to be made; Compton's No. 2 Mann permit, Section 3-18-27, shut down at 2,060 feet; Cook-Ironsides' No. 1, Section 10-20-29, underreaming at 1,700 feet; Decum Development Co.'s No. 1 Vandagriff permit, Section 5-17-28, running 5 3/16-inch casing; Flynn-Welch-Yates' No. 49, Section 3-18-28, drilling below 1,800 feet; No. 3 Dunn permit, Section 10-18-28, drilling below 650 feet; Rehn and others' No. 1 Winans, Section 15-18-26, shut down; Hamilton Petroleum Co.'s No. 1 Billings, Section 12-19-26, shut down for repairs; Henderson-Dexter-Blair, Section 9-19-28, drilling below 1,200 feet; Ohio Oil Co.'s No. 2 New States, Section 8-18-28, drilled to 2,834 feet, plugged back to 2,375 feet, will be shot; Phillips & Welch's No. 1, Section 35-17-28, drilling below 2,300 feet; Swartz-Compton-Eaton's No. 1 Brainard permit, Section 5-18-27, shut down at 2,002 feet; Sun Oil Co.'s No. 1, Section 21-25-30, drilling depth not known; Skelly Oil Co.'s No. 1 Lynch permit, Section 22-17-31, trying to pull 12½-inch casing which has parted; Snowden-McSweeney's No. 2, Section 33-18-28, cleaning out; Bruce Sullivan's No. 1 Lodewick permit drilling below 1,100 feet; Twin Lakes Oil Co.'s No. 8 Section 28-18-28, cleaning out after shot; Merriwether and others' No. 1 Goodale, Section 19-18-29, drilling below 2,300 feet; Wooley-Jones' No. 1 Beeson, Section 33-17-30, will set casing and drill deeper; Pueblo Oil Co.'s No. 1, Section 33-17-28, spudded.

Lea County

Cap-Rock Oil & Gas Corp.'s No. 1, Section 11-16-32, drilling 200 feet; J. S. Covert's No. 1, Section 15-21-33, drilling below 1,350 feet; Inglefield and others' No. 1, Section 4-17-34, drilling in lime at 900 feet; Maljamar Oil & Gas Corp.'s No. 1 Baish, Section 21-17-32, driving lead plug in bottom of the hole at 4,140 feet to shut off water; Ohio Oil Co. spudding in on Mitchell and Miller permits in Section 18 and 35, Township 17, Range 32.

More Evidence Favoring COOPERS



Above is another line of Cooper Type-80 gas engines in a gasoline plant in the Davenport, Oklahoma, field. This installation was recently put into operation by one of the very largest oil companies in the country. The same company has since installed another station with Cooper engines in Texas.

There can be but one explanation of why so many of the largest companies swing to Cooper engines—by comparison they find them to be generally more satisfactory and they prefer to do business with an old organization which has built a reputation for assuming full responsibility for its product.

THE C. & G. COOPER COMPANY, Mt. Vernon, Ohio

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California Production May Increase

Active Development at Huntington Beach, Ventura Avenue and Seal Beach Expected to Result in Greater Output

By L. P. Stockman
Staff Correspondent, California Fields

LOS ANGELES, Calif., Aug. 14.—Huntington Beach, the first of the recent gusher fields in southern California, will undoubtedly share the spotlight during the next several months with Ventura Avenue and the newly opened field at Seal Beach, as a result of the development program projected in the southwest extension and the new work expected to get under way soon in the extreme northern part of the field where the California Petroleum recently finished its No. 1 Buck as a fairly good producer. This well, by the way, flowing through a ½-inch bean, made 270 bbls. during the 24-hour period ending at 7 o'clock this morning and, due to the fact that the gas pressure has been holding fairly steady, no immediate decline is anticipated. The California Petroleum has staked locations for two more wells in the Buck area, although material is not yet on ground, the company will undoubtedly start rig construction within the next few days. The Standard will also probably undertake some new work as this company controls the offsetting Bolsa Chica acreage. No unusual amount of drilling will be done by either for the present, however, as each company has several wells under way in the town lot area.

Development of the southwest extension is moving ahead by leaps and bounds and, judging by the progress made to date, some 25 or 30 wells will be spudded within the next two weeks. The Superior's No. 1 Jones, which actually proved up this area for production, is doing 290 bbls. a day at the present time. The success which the Superior achieved has proven a powerful stimulant and the activity in this area recalls to memory some of the fast work done during the early days immediately following the completion of the discovery, No. 1 Bolsa Chica.

Production May Increase

Production at Huntington Beach has been unusually stable since the summer of 1924 but it looks as though the old field will reflect development work in the southwest extension and begin climbing again probably around the end of September. It is problematical, of course, just what the new peak will be as this is dependent more or less upon the amount of work undertaken and the results attained. One thing is certain, however, and that is that no time will be lost in going after the pay. Development work in the northwest extension at Long Beach is still fresh in the minds of many and, although it is axiomatic that the first well gets the cream, many were not familiar with this law, with the result that numerous late starters in that district will never pay out. This lesson was rather costly, but, judging by the activity at Huntington Beach, operators are determined to prevent a repetition. Some 15 or 20 wells are scheduled to get under way within the next several days on the first lap of the Jones sand picked up by the Superior or something better.

Additional rigs are going up in all directions and, if the present known shallow sand is capable of sustaining town lot development, the field production will undoubtedly show a gradual and consistent increase. It is problematical, however, whether the Superior sand will be able to boost the field production more than 10,000 bbls. a day. What operators are concerned in at the present time is the possibility of picking up a lower zone and getting some idea of its potentiality.

IMPORTANT SOUTHERN CALIFORNIA WILDCATS

Company, Well and Location—	S-T-R	Depth	Status
Union, No. 1 Bryant, Seal Beach	2- 5-12	5,006	br. sh. drilling
Bellflower, No. 1 Blyhe, Bellflower	.....	rig	spud soon
Marine, No. 1 Strong, Bellflower	24- 3-12	1,240	gr. sd. drilling
Feather & Preston, No. 1 Blinn, Clearwater	16- 3-12	370	gr. sd. drilling
Union, No. 1 Howland, El Segundo	24- 2-15	4,349	sd. sh. drilling
Smith Brothers, No. 1 Johnson, Hawthorne	17- 3-14	751	sand, drilling
Associated, No. 1 Cypress, Inglewood	34- 2-14	1,887	sh. gr. sd. cem.
Johnson, G. W., No. 1 Martin, Manhattan	30- 3-14	5,315	unfavorable
Julian, No. 1 Trust, Manhattan	19- 3-14	5,300	slight showing
Milham Explth., Well No. 2, Del Rey	34- 2-15	5,972	br. sh. drilling
Barnsdall, No. 1 Merlo, Puento	35- 1-11	4,051	sd. sh. drilling
Petroleum Sec., No. 1 Sesnon, San Fernando	14- 2-16	3,200	minor show'g
Standard, No. 1 University, San Fernando	15- 2-15	3,549	sd. sh. drilling
Standard, No. 1 Austin, Topango	11- 1-17	985	hd. sd. drilling
Union, No. 1 Saugus, Saugus	15- 4-16	3,712	br. sh. drilling
Union, No. 1 Olinda, Orange Co.	15- 3- 9	5,309	suspended
Union, No. 2 Olinda, Orange Co.	10- 3- 9	4,468	gr. sd. drilling
IMPORTANT NORTHERN CALIFORNIA WILDCATS			
Marland, No. 1 Williams, Santa Barbara	32- 9-32	4,286	prod. test
Marland, No. 1 Lazard, Kern County	27-26-20	5,350	unfavorable
Union, No. 2 Theta, Kern County	23-28-20	rig	survey hole
Schwartz, A. G., Well No. 1, Rosedale	25-29-26	4,561	sd. sh. drilling
Taylor, W. W., Well No. 1, Clovis	5-13-22	908	hd. sd. drilling
Associated, Well No. 1, Huron	20-19-17	2,450	sd. sh. drilling
Fresno United, Well No. 3, Raisin City	23-15-18	3,490	suspended
Federal Explth., No. 1 Wildcat, Tulare Co.	15-22-24	619	sd. sh. drilling
Bolsa Chica, Well No. 1, Kettleman	30-23-19	2,191	sd. sh. drilling
Marland, No. 1 Elliott, Kettleman	12-22-17	5,570	fishing
Shell, No. 1 Berlywood, Moorpark	32- 3-20	4,761	unfavorable
C. C. M. O., No. 1 Hobson, Ventura Co.	22- 3-24	5,502	sd. sh. drilling
Milham Explth., No. 1 Sexton, Ventura Co.	19- 3-22	6,100	hd. sd. drilling
Standard, No. 1 Palmer, Santa Barbara	13- 9-23	2,219	sd. sh. drilling
Pan American, No. 1 White, Monterey Co.	27-23-13	2,041	sd. sh. drilling
Pyramid, No. 1 Trescony, Monterey Co.	26-21- 9	2,460	gr. sd. drilling
Shell, No. 1 Murphy, Petaluma	29- 5- 6	2,115	hd. sd. drilling
Miley Explth., No. 2 Casitas, Ventura Co.	7- 3-25	310	swedging
Rio Grande, No. 1 Canet, Ventura Co.	9- 3-23	835	fishing
Sentinel, No. 1 Tejon, Ventura Co.	5- 5-17	555	sd. drilling

Due to the limited amount of development work done to date, very little is known of the potentiality of the upper or Superior zone but it is believed it will average somewhere around 100 feet in thickness.

May Be Deeper Sand

Operators are practically unanimous in the belief that a deeper sand will be developed and for this reason it is expected that all upper zone wells will be finished with pipe sufficiently large enough to permit deepening work in the event that something materializes along this line. Huntington Beach is producing approximately 45,000 bbls. a day at the present time but it is believed the field will pass the 55,000-bbl. mark well within the next 90 days due to development of the present known horizon, unless a deeper and more productive zone is picked up, in which event the production will not respond as quickly because wells will be carried direct to the lower zone and require a longer time to finish.

Many New Locations

During the past two weeks something like 50 locations were staked, a considerable number of these flags having since been replaced by rigs. A visit to the field yesterday revealed nine new locations as yet unidentified. The Superior has gone into the extension on a large scale and has, in addition to the discovery well, rigs going up for No. 1 Babbitt, No. 1 Chedman, No. 1 Gillette, No. 1 Gilmore, No. 1 Nixon, No. 1 Schwartz and Nos. 1 and 2 on property owned in fee, making a total of eight tests scheduled to get under way immediately. The California Petroleum is rigging up No. 1 McIntyre, No. 1 Turner and No. 1 Tubach. The Wilshire, in addition to its No. 1 at 3,450 feet, which is being carried down in search of a deeper sand, has rigs going up for Nos. 2, 3 and 4.

The Julian Petroleum will probably finish the second well in the townsite area, as its No. 1 Lambert is in the oil sand at 3,120 feet. The company may, of course, decide at the last minute to pass up the shallow zone in the hope of securing flush production in the expected deep horizon. The company's policy will undoubtedly be decided by the opinion of its geological department as to whether it anticipates the development of a lower sand. It is logical to assume that most operators will pass up the shallow sand and this would probably be a wise move as the well could be plugged back in the event that deep production was not secured. George F. Getty spudded in his No. 4 Coffin and the hole was found yesterday to be 360 feet in depth. The Miley Oil Co. is stepping right along with its No. 1 Pacific Electric and has erected a rig for No. 2. The McKeon Oil Co., in which the Richfield has a one-half interest, has just passed the 1,200-foot level in No. 1 Huntington.

The Standard has rigs going up for Nos. 1, 2 and 3 on the Huntington property and is digging the cellar for No. 1 Anderson. In addition to these new tests in the extension, the Standard has three drillers on its Lease B to the north, one of which, No. 48, has just been finished. This well started flowing yesterday from 4,442 feet and, although the exact initial is not available, it looks good for somewhere around 300 bbls. The United Royalties and the Paragon Oil Co. will probably spud in their respective tests in the extension within the next 10 days.

Long Beach

Only one well was put on production at Long Beach during the past seven-day period, the Rio Grande Oil Co. returning its No. 7 Cerritos to production after redrilling and deepening it to the lower sand. This well, secured through the purchase of the holdings of the Rainbow Oil Co., was good for 470 bbls. of 22.1 gravity oil from 4,760 feet. Walter P. Temple's No. 5 Cerritos, which is being carried down in search of a third oil sand in the extension, has just passed the 5,248-foot level. Three wells were listed for abandonment during the week, No. 54 Cerritos of the Marine, No. 1 Cook of the United, and Moore & Adams' No. 1 Cerritos. The California Petroleum will also list an abandonment shortly, as work has been suspended on No. 1 Bixby, a deep test east of the extension which has stopped in a gray sand a 5,488 feet. Development work in the extension has been getting smaller and smaller each week and this condition will undoubtedly be reflected in a smaller number of completions as time goes on. There are still about 50 wells which will make a bid for production in the deep zone but none of them are expected to show a large initial. A few may, of course, start off dong around 500 bbls. but this production will not be maintained for more than a few days following completion. Others will never reach the production stage.

Fred E. Cole's No. 1 Wright, just north of the General Petroleum's Vaughn lease in the Rosecrans Field, started off doing 288 bbls. of 39.1 gravity oil from 4,050 feet, the output cutting approximately 3 per cent. The Barnsdall is expected to finish two new wells in this district during the next few weeks, as both Nos. 13 and 14 on the O'Dea lease are already down better than 4,500 feet. The Union should also add a new well or two on the Howard Park property during this period. The only abandonment listed in this field recently was the Union's No. 3 Rosecrans, which has been standing suspended for some time at 5,231 feet.

Inglewood

The Standard added a new well in the Inglewood Field during the current week as a result of the completion of No. 6 Stocker, but it was a distinct disappointment as the initial production, 100 bbls. daily from 1,960 feet, is cutting around 30 per cent. The hole was plugged back from 2,616 feet to 1,960 feet and, while it is possible that the plug has proven ineffective, it is more logical to assume that the cut is due to edgewater. The Union has finished cleaning out No. 4 Hellman at Dominguez and the well will be swabbed tomorrow. It is expected that it will be good for around 300 bbls. from 4,172 feet. The Union's next completion in this area will undoubtedly be No. 13 Hellman, which is driling ahead in an oil sand at 4,210 feet. The Shell's next producer will be either No. 31 Reyes or No. 33 on the same property with the former having a slight edge at 4,140 feet.

The Chanslor-Canfield Midway Oil Co.

(Continued on Page 94)

TANKER SHIPMENTS FROM LOS ANGELES TO ATLANTIC AND GULF COAST PORTS

Commodity—	Total This week	Daily Average	Total Last week	Daily Average	This year To date	Same time Last year
Crude oil	260,302	37,186	86,503	12,358	7,801,066	9,710,406
Fuel and gas oil	217,594	31,085	137,426	19,632	5,770,133	237,873
Gasoline	75,893	10,842	334,556	47,794	4,378,637	5,228,588
Tops	.....	.....	.....	.....	74,619	402,994
Coastwise—						
Crude oil	495,841	70,834	362,018	43,146	14,515,750	19,569,865
Fuel and gas oil	509,006	72,715	173,521	24,789	6,666,606	7,198,406
Gasoline	53,777	7,682	145,178	20,740	4,509,192	2,816,986
Kerosene	.....	.....	.....	.....	166,870	244,136
Tops	15,180	2,169	.....	.....	574,844	128,986
Exports—						
Crude oil	151,761	21,680	187,698	26,814	3,533,961	1,565,128
Fuel and gas oil	297,175	42,454	766,617	109,517	10,745,072	9,504,663
Gasoline	138,829	19,833	32,022	4,575	3,244,112	2,499,719
Tops	.....	.....	.....	.....	.....	170,407
Kerosene	57,278	8,182	71,777	10,254	1,340,126	1,450,477
TANKER SHIPMENTS FROM SAN FRANCISCO TO ATLANTIC, GULF COAST PORTS						
Fuel and gas oil	73,184	10,455	82,701	11,814	884,982	218,414
Gasoline	.....	.....	.....	.....	685,236	870,601
Tops	.....	.....	.....	.....	229,775	794,918
Lubricants	.....	.....	.....	.....	275,617	235,533
Coastwise—						
Fuel and gas oil	.....	.....	124,998	17,857	2,821,109	2,204,090
Gasoline	184,005	26,286	115,436	16,491	2,847,865	1,522,288
Kerosene	.....	.....	21,998	3,143	267,044	128,104
Exports—						
Fuel and gas oil	140,875	20,125	.....	.....	2,076,492	1,416,411
Gasoline	.....	.....	80,167	11,452	943,747	417,581
Kerosene	.....	.....	.....	.....	1,252,123	723,316
Lubricants	.....	.....	.....	.....	.....	243,429

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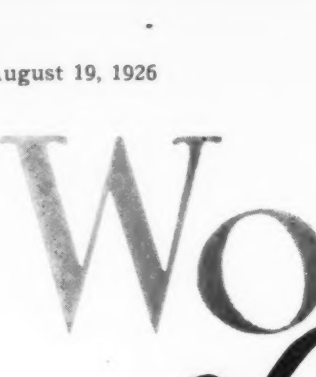

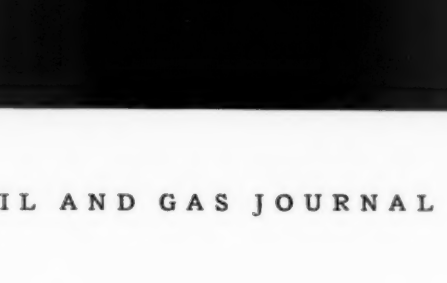

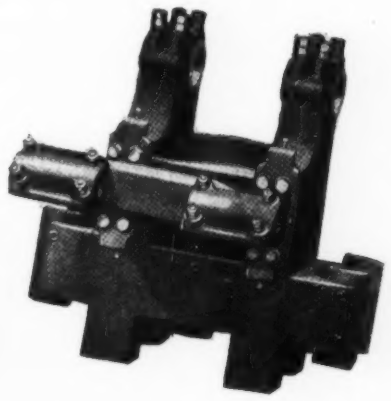

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Seminole Most Active Oklahoma Pool

Completion of Good Hunton Lime Wells in North End Arouses Interest. North Braman Deep Sand Extended

By J. L. Dwyer
Staff Correspondent, Oklahoma Fields

The most interesting spots in the Oklahoma fields during the past week were the North Braman Field in Kay County close to the Kansas line, and the Seminole Pool in Seminole County.

At the former field, the Wilcox sand production was extended slightly over a half-mile north and east by the completion of the Comar Oil Co.'s No. 5 Pribboth, NE cor. NW, Section 21-29-1w. This well found the deep sand 3,379-84 feet and made 350 bbls. The north offset to the well was completed during the week by the Mid-Continent Petroleum Co. It was No. 1-A School land, SE cor. SW, Section 16-29-1w, and it found the sand 3,487-92 feet, and flowed 1,700 bbls. the first 16 hours and then settled to 60 bbls. an hour. The interesting feature of this well is that it found the sand 120 feet lower than the Comar No. 2 Pribboth. This sharp dip in one location would influence the opinion that water might be expected, but there has been no evidence of water intrusion.

The extension of this pool adds another 200 acres to its potential area of deep sand production.

Seminole Pool Active

The Seminole Pool is the scene of great activity at present. The completion of good Hunton lime wells in the north end of the field has aroused much interest. The Carter Oil Co. has the best well in this formation in its No. 1 Stewart, SW cor NW SW, Section 34-10-6. This well is a direct east offset to the F. J. Searight well, which started activity in this part of the field.

Although it is termed one pool and has been named Seminole, the production will very likely be divided into three groups. The north group of wells in Sections 33 and 34, Township 10-6; the central group, which first found production in Section 24-9-6; and the southern group, (or rather well), in Section 26-9-6. It is unlikely that the groups will form an uninterrupted line of production. The two groups to the north are producing from the Hunton lime, and the south well is making its oil from the Wilcox sand. A list of the production for the 24 hours ending Monday of this week follows:

Section 24-9-6

Company—	Wells	Prod.
Amerada	1	22
Barnsdall	2	1,457
Carter	1	60
Mid-Continent Pet.	1	1,239
I. T. I. O. Co.	2	369
I. T. I. O. Co.	2	112
Independent O. & G. Co. and R. F. Garland	1	5,527

Sections 33 and 34-10-6

F. J. Searight and others	1	95
Prairie O. & G. Co.	1	770
Mid-Continent Pet. Corp.	1	887
Carter Oil Co.	1	3,622
Total	16	15,491

Future Problematical

The irregularities of Hunton lime production renders the task of visualizing any future for the pool a very difficult task. Considering its present prospects, it would naturally seem that with the good production of the Carter well, and the light production of the well immediately to the west of it (Searight and others') the best production will be found northeast of the Carter well. The Prairie well, and also the Mid-Continent well are making substantial yields, and cannot be overlooked. It is possible that the pool may be extended southwest from these wells. The average area of Hunton lime pools is approximately 300 or 400 acres.

The most important operations are in the vicinity of the Independent-Garland well. The huge production of this well, and the steady rate of flow which it has maintained causes much optimism for this area. Many students believe that the well could be drilled deeper with safety and that it would respond with an increase in production. The owners have decided upon a policy of safety. They will have over 100 days' production from this well before any offsetting wells are completed.

In the north end of the Seminole Pool, the Carter Oil Co.'s well in the SE cor. SE, Section 35-10-6, is close to the sand and will probably be the next well drilled in. This will be very closely observed, as, should it find oil, a wide region will be thrown open for drilling. It is 1½ miles east of the present production.

New Creek County Pool

Drilling upon a core drilled structure in Creek County, the Wood Oil Co. has evidently opened up a new Prue Sand Pool in No. 1 Tey, NW cor. SE, Section 25-14-9. This well found the sand 2,025-75 feet and is estimated at 90 bbls. after a shot of 150 quarts.

The Riverland Oil Co.'s No. 1-A, CEL W half NW, Section 1-18-11, had the Turkey Mountain sand 2,075-80 feet and started flowing 20 bbls. an hour.

In the Burbank Field, the Phillips Petroleum Co.'s No. 8, NE cor. SE SW, Section 1-27-5, made 2,500 bbls. from the regular Burbank sand; and No. 13, NW cor. SE, Section 7-27-6, made 1,200 bbls. from the same formation. The sand records on these wells are not available.

In Pontotoc County, the LaSalle and others' well, which was drilled in four weeks ago and evoked much interest has stopped flowing. It is No. 1 Copeland, NE cor. SW, Section 28-5-5, and it had an initial production of 300 bbls. Tubing and a packer will be run in an effort to revive the flow.

In Seminole County, the Superior Oil Co.'s No. 1 Pullatka, SE cor. NE, Section 31-8-6, has 700 feet of oil in the hole from a total depth of 4,370 feet. It will be drilled in within a few days. This is a very interesting development, and the sand has not been identified. It is considered rather deep for the Wilcox, which was found at a depth of 4,100 feet in Section 26-9-6.

Production by Companies

Production by companies and wells in some of the more important pools in Oklahoma for the week ending August 13 follows:

Garber Deep Sand

Company and Lease—	Wells	Oil	Water
Carter Oil Co., Dively	2	90	90
Marland & Mid-Continent Pet., School Land	8	304	254
Mid-Cont. Pet., Wishart	2	56	56
Franchot Co., Lynds	1	30	30
Healdton O. & G., Belveal	1	15	15
Prairie, Wishart	2	0	0
Roxana, Schroeder	7	852	1,202
Roxana, Wolfe	1	170	145
Sinclair O. & G., Belveal	4	142	193
Sinclair O. & G., W. Kisner	5	432	436
Sinclair O. & G., Hartley	5	1,731	1,365
Sinclair O. & G., N. Walker	12	1,063	1,122
Sinclair O. & G., Denker	2	71	65
Total	52	5,016	4,973

Oswego Lime

Sinclair O. & G., Shaffer	1	15	16

Layton Sand

Roxana, Schroeder	8	4,063	3,519
Sinclair, N. Walker	8	3,651	5,603
Sinclair, Hartley	6	2,544	3,055
Sinclair, W. Kisner	2	335	320
Marland & Mid-Cont. Pet., School Land	6	1,638	1,686
Total	27	11,469	13,417

Tonkawa Sand

Roxana, Schroeder	17	4,593	3,908
Sinclair, N. Walker	8	1,675	1,718
Sinclair, W. Kisner	3	336	357
Sinclair, Hartley	5	186	206
Marland & Mid-Cont. Pet., School Land	6	1,638	1,686
Total	39	8,428	7,875

Hoover Sand

Roxana, Schroeder	5	140	117
Sinclair, Hartley	7	2,550	2,173
Sinclair, N. Walker	7	1,112	1,015
Marland & Mid-Cont Pet., School Land	2	67	49
Total	21	3,871	3,354

Garber by Companies

Carter Oil Co.	2	90	90
Marland Oil Co., and the Mid-Cont. Pet. Corp.	19	2,887	2,918
Mid-Cont. Pet. Corp.	2	56	56
D. W. Franchot Co.	1	30	30
Healdton Oil & Gas Co.	1	15	15
Prairie Oil & Gas Co.	2	0	0
Roxana Pet. Corp.	38	9,818	8,882
Sinclair Oil & Gas Co.	75	15,913	17,644
Total	140	28,809	29,635

Seminole Pool

Amerada Petroleum Corp.	1	25
Barnsdall Oil Co.	2	1,502
Carter Oil Co.	1	61
Independent-Garland	1	5,503
I. T. I. Oil Co.	5	642
Mid-Cont. Petroleum Corp.	2	2,080
Prairie Oil & Gas Co.	1	934
Searight and others	1	60
Superior Oil Co.	1	15
Tidal Oil Co.	3	1,651
Total	18	12,473

Burbank Field

Carter Oil Co.	283	5,122
Comar Oil Co.	7	94
Mid-Continent Petroleum Co.	106	1,038
Devonian Oil Co.	16	98
Kewanee Oil & Gas Co.	27	1,074
Laurel Oil & Gas Co.	16	148
Lewis Oil Co.	22	1,706
Lorraine Oil & Gas Co.	15	83
Midland Oil Co.	37	473
Mid-Kansas Oil & Gas Co.	45	1,074
Peters-Oliphant	4	624
Phillips Petroleum Co.	223	17,704
Delmar Oil Co.	16	666
Phillips-Skelly	180	2,079
Prairie	127	2,657
Producers & Refiners	29	225
Roxana Petroleum Corp.	54	502
Seamens	1	0
Simons Moore	29	181
Sinclair Oil & Gas Co.	144	1,197
Skelly Oil Co.	32	1,223
Tidal-Osage	42	444
The Texas Company	16	226
Twin State Oil Co.	24	291
Total	1,689	38,929

South Burbank

Phillips Petroleum Co.	3	374
Prairie Oil & Gas Co.	9	1,087
Sinclair Oil & Gas Co.	1	8
Midland Oil Co.	2	40
Total	15	1,509

Kay County Extension

George S. Boles	3	168
Carter Oil Co.	11	835
Comar Oil Co.	17	894
Mid-Continent Petroleum Corp.	16	701
Gypsy Oil Co.	18	276
Laurel Oil & Gas Co.	5	219
Mid-Kansas Oil & Gas Co.	10	625
Phillips Petroleum Co.	32	2,909
Prairie Oil & Gas Co.	4	100
Pure Oil Co.	4	200
Roxana Petroleum Corp.	8	244
Dye-Tomlinson	20	203
Skelly-Phillips	20	269
Sinclair Oil & Gas Co.	5	196
The Texas Company	16	129
Twin State Oil Co.	15	605
Total	192	7,673
Grand total	1,896	48,111

Wewoka Deep Sand

Amerada Petroleum Corp.	12	8,571
Dixie Oil Co.	5	2,892
Homa-Okla Oil Co.	2	115
Independent Oil & Gas Co. and Atlantic Oil Prod. Co.	3	1,504
Magnolia Petroleum Co.	12	6,511
McCulloch Oil Co. and others	1	466
Prairie Oil & Gas Co.	1	532
Producers & Refiners Corp.	1	1,629
W. R. Ramsey	3	3,560
Total	40	25,680

Osage County New Work

Phillips Petroleum Co.'s No. 6, NE SW NE, Section 12-27-5e, drilling at 850 feet. Oliphant and others have rig up for No. 5, SE SW NW, Section 17-27-6e. Lewis Oil Co.'s No. 9, SW SW SE, Section 21-26-6e, drilling at 770 feet. Its No. 10, SW SE SE, in same section, is a rig. Oliphant and others' No. 3, NE NW NW, Section 31-25-8e, rig. Atlantic's No. 1, CEL SW NE, Section 19-24-8e, is drilling at 100 feet. Continental Oil Co.'s No. 22-A (twin), NW NW NW, Section 33-24-8e, drilling at 160 feet. Tidal Oil Co.'s No. 2, NE SE SE, Section 1-23-8e, rig. American Oil & Development's No. 22, NW SW NE, Section 13-23-10e, drilling at 240 feet. New England's No. 1, SW SW SW, Section 17-23-10e, rig. Skelly Oil Co.'s No. 1, SE SE SW, Section 35-22-8e, is a rig. Barnsdall's No. 3, NW NW NW,

FIRST LOCATIONS IN PANHANDLE AND NORTH AND WEST TEXAS

Roberts County

Pettyjohn and others' No. 1, J. A. Meade, center of NE of Section 29, Block B-1, H. & G. N. Survey.

Hutchinson County

Panfield Oil Co.'s No. 1 Luginbyhl Brothers' 1,834 feet south and 2,362 feet west of most northerly NE cor. Section 50, Block M-23, T. C. R. R. Survey. Amerada Petroleum Corp.'s No. 5 J. A. Whittenburg-B, 990 feet north and 330 feet east of SW cor. NW, Section 89, Block Z, G. C. & S. F. Survey. Bozo Oil Co.'s No. 1 W. B. Haile, 330 feet south and east of NE cor. Section 17, Block L, E. T. R. R. Survey, and located in Section 24, Block M-21, T. C. R. R. Survey. Brookins & Kistler's No. 2 J. A. Whittenburg, 330 feet south and west of NE cor. E half of NE SE, Section 13, Block Y. Devonian Oil Co.'s No. 6 Johnson Brothers, 330 feet north and east of SW cor. Lot 4, Johnson Brothers Subdivision Mary Whitley Survey No. 1. Empire Gas & Fuel Co.'s No. 2 Johnson Brothers-A, 990 feet north and 330 feet west of SE cor. Section 68, Block 46, H. & T. C. Survey; No. 3 Johnson Brothers-A, 330 feet north and 990 feet west of SE cor. Section 68, Block 46, H. & T. C. Survey; No. 8 J. F. Weatherly, 330 feet north and east of SW cor. NE NE, Section 19, Block Y; No. 9 J. F. Weatherly, 330 feet north and east of SW cor. SE NE, Section 19, Block Y. J. K. Hughes Development Co.'s No. 8 W. L. Kingsland-B, 330 feet south and 990 feet east of NW cor. west of south Section 6, Block B-4, D. & S. E. Survey. Marland Oil Co.'s No. Johnson Brothers-A, 330 feet south and west of middle north line of south half NE, Section 20, Block Y; No. 7 Johnson Brothers-A, 330 feet north and 996 feet east of SW cor. S half NE, Section 20, Block Y; No. 8 Johnson Brothers-A, 330 feet north and 990 feet west of SE cor. S NE, Section 20, Block Y. Midwest Exploration Co. and others' No. 6 H. E. Smith and others, 330 feet north and west of SE cor. NW, Section 5, Block Y. McMann Oil & Gas Co.'s No. 8 H. E. Smith and others, 330 feet south and west of NE cor. NW of NE, Section 5, Block Y. Panhandle Refining Co. and others' No. 1 H. E. Smith and others, 330 feet south and west of NE cor. E half NE 40 acres of NE, Section 5, Block Y. Phillips Petroleum Co.'s No. 3 W. L. Kingsland, 330 feet north and 1,520 feet east SW cor. N half, Section 6, Block B-4, D. & S. E. Survey; No. 2 J. A. Whittenburg-Pattsburg, 990 feet north and 330 feet east of SW cor. Section 67, Block 46, H. & T. C. Survey. Phillips Petroleum Co. and Gibson Oil Corp.'s No. 9 J. A. Whittenburg, 330 feet north and west of SE cor. Section 63, Block 46, H. & T. C. Survey. Phillips Petroleum-Pulaski Oil Co.'s No. 4 H. E. Smith and others, Section 12, 330 feet south and west of NE cor. W half NE, Section 12, Block Y. Skelly Oil Co.'s No. 6 Johnson Brothers-Powell, 990 feet north and 333 feet west of SE cor.

(Continued on Page 86)

Section 2-21-8e, drilling at 100 feet. Oklahoma Natural Gas Co.'s No. 714, SW SW SW, Section 17-21-11e, drilling at 395 feet. Kewanee Oil & Gas Co.'s No. 10, C SE SW, Section 19-21-12e, drilling at 600 feet.

Osage County Completions

Phillips has completed its No. 12, SE NE NE, Section 12-27-5e, for 1,200 bbls. after a 100-quart shot. Total depth 3,007 feet. Also its No. 12, NE NW NE, in same section, 600 bbls. after a 100-quart shot. Total depth 2,997 feet. Same company's No. 15, NW NE SW, Section 7-27-6e, after a shot of 110 quarts from sand at 2,950-3,007 feet, completed for 200 bbls. Kewanee Oil & Gas Co.'s No. 1, SW SW NE, Section 34-27-6e, completed for 750 bbls. naturally. Total depth 2,809 feet. Lewis Oil Co.'s No. 7, SW SW SE, Section 21-26-6e, made 430 bbls. after a 75-quart shot from sand at 2,886-34 feet. Phillips' No. 11, SW NE SW, Section 21-26-6e, was shot with 105 quarts from sand at 2,904-59 feet, good for 375 bbls. Davis and others' No. 17, SW NE SW, Section 35-23-10e, is dry and plugged at 1,828 feet. Devonian Oil Co.'s No. 1, SW SE NE, Section 24-21-9e, dry and abandoned at 2,730 feet. Commercial Drilling Co.'s No. 3, NW NE SW, Section 22-21-12e, is good for 10 bbls. after a 60-quart shot. Total depth 1,278 feet.

Kay County New Work

Comar Oil Co.'s No. 2, SE NE SE, Section 20-29-1w, is a location. Same company has made location for No. 1 Judd, NE NE NE, Section 29-29-1w. Marland Oil Co. is building a rig for its No. 2 Brokehausen, NW NE SE, Section 17-29-1e. Carter Oil Co. is rigging up for No. 2 Bradley, NE NW NE, Section 20-29-1e. Comar Oil Co.'s No. 4 Lawrence, CNL SE NW, Section 5-28-1w, is rigging up. Blackwell Oil & Gas Co. is rigging up for its No. 4 Jamison, SE NE SE, Section 5-27-1w. Mummert Drilling Co.'s No. 1 J. K. Lacy, SW SW NE, Section 26-27-2e, drilling at 948 feet. Philmack Oil Co.'s No. 1 Coyle, SW SW SW, Section 21-25-1w, drilling at 800 feet.

Kay County Completions

Comar Oil Co.'s No. 3 McCullough, NW SW SE, Section 5-28-1w, is good for 51 bbls. on the swab. Sand at 2,805-20 feet, total depth. Marland Oil Co.'s No 1 School Land, NE NE NW, Section 13-25-2w, wildcat, is dry and abandoned at 2,640 feet, total depth. Slick Oil Co.'s No. 4-E L. Endicott, NE SE SW, Section 35-25-1w, after a 40-quart shot from sand at 3,930-40 feet, swabbed 150 bbls.

Garfield County New Work

Sinclair Oil & Gas Co.'s No. 52 Hartley, NW NW NW, Section 18-22-3w, is a rig. Same company's No. 17, Kisner, CEL SW NE, Section 19-22-3w, is drilling at 745 feet. Sinclair's No. 37 Kisner, SW NE NW, Section 19-22-3w, location. Charles Knox is spudding No. 4 McClean, C NW SW, Section 31-22-3w.

Garfield County Completions

Failing and others have a dry hole in their No. 1 Garton, NW SW NW, Section 35-23-3w. Total depth 2,280 feet. Roxana's No. 3 Wolfe, SE SE NW, Section 13-22-4w, is dry and abandoned at 3,026 feet. Also their No. 5 Wolfe, NE NE NW, total depth 3,850. Sinclair Oil Co.'s No. 53 Walker, NE SE NW, Section 13-22-4w, completed for 160 bbls., sand at 3,677-3,702 feet, total depth. No. 57 Walker, CEL SE NE, 529 bbls., sand at 3,677-3,702 feet, total depth, and No. 59 Walker, C SE NE, 500 bbls., sand at 2,510-18 feet, total depth. No. 61 Walker, SE SW NE, 150 bbls., sand at 3,107-12 feet, total depth. It has abandoned location for No. 62 Walker, NW NE NE, and No. 63 Walker, NE NE NE, Section 13-22-4w. Carter Oil Co.'s No. 53 Dively, NE NE SW, Section 24-22-4w, completed for 5 bbls., total depth 3,680 feet. Healdton Oil & Gas Co.'s No. 19 Belveal, CEL NW NE, Section 24-22-4w, is dry and abandoned at 3,410 feet. In Section 16-22-3w, Hopper & Chapple have a dry hole in their shallow test in No. 1 School Land, CSL SE NE. Roxana's No. 6-T Schroeder, EL SW SW, Section 18-22-3w, made 1,070 bbls. from sand at 3,589-3,619 feet, and No. 7-T Schroeder, SE NW SW, made 163 bbls. from sand at 3,711-16 feet. Sinclair Oil Co.'s No. 43 Hartley' EL SW NW, Section 18-22-3w, is good for 313 bbls. from sand at 3,644-78 feet. Its No. 49 Hartley, CWL SW NW, made 900 bbls. from sand at 3,662-99 feet. Crews Heirs' No. 19 Crews, SE NW SE, Section 19-22-3w, is making 10 bbls. on the pump from sand at 2,065-2,112 feet. Sinclair Oil Co.'s No. 29 Kisner CNL NE NW, Section 19-22-3w, made 330 bbls. from sand at 3,615-43 feet. Prairie Oil & Gas Co.'s No. 1 Bostwick, NW NW NE, Section 6-21-3w, dry and abandoned at 2,696 feet.

Noble County New Work

Prairie Oil & Gas Co. is rigging up for No. 1 Bleidinger, NW NW SW, Section 22-21-2w.

Pawnee County New Work

Minnehoma's No. 8, NW NW, Section 24-21-7e, drilling at 700 feet. Adamson's No. 8 Sigan, SE SW SW, Section 32-21-8e, is a rig. Stacey & Vaughn are rigging up for No. 1 Wiley, NE NW SW, Section 6-20-5e. Sinclair has rig up for No. 17 Brentnall, NW NW SW, NE, Section 10-20-8e.

Pawnee County Completions

Garber & Pulse's No. 1 S. J. Long, NE NE NE, Section 29-21-7e, dry and abandoned at 2,712 feet. Adamson's No. 7 Sigan, SW SW, Section 32-21-8e, made 75 bbls. from sand at 2,928-33 feet. Magnolia Petroleum Co.'s No. 4 Privett, NW SW SW, Section 9-20-6e, after a 5-quart shot from sand at 3,055-73 feet, made 15 bbls. Same company's No. 3 Baker, NW SE NE, Section 17-20-6e, made 25 bbls. after a shot of 5, 15 and 15 quarts from sand at 3,042-56 feet. Josey Oil Co.'s No. 5 M. Embry, C SW SE, Section 21-20-6e, was shot with 20 and 60 quarts from sand at 3,036-55 feet, after which it made 230 bbls. Sinclair Oil Co.'s No. 11 Mullendore, SW SW NW NE, Section 10-20-8e, is making 105 bbls. per day from sand at 2,583-2,605 feet.

Kingfisher County New Work

Bu-Vi-Bar Petroleum Co. is moving in rig for No. 1 Browning, SE SW SW, Section 16-19-5w. Roxana's No. 1 McCully, SW NE SE, Section 30-19-4w, is drilling at 165 feet.

Payne County New Work

Twin State Oil Co.'s No. 1 C. Moore, SE SE SE, Section 15-19-5e, is a location. Gloyd & Wilson's No. 1 Widdoes, NE SE NW, Section 32-18-3w, has rig on ground.

Payne County Completions

Roxana Petroleum Co. has abandoned its No. 4 Stover, SW SE SW, Section 13-19-4w, because of fishing job and proximity of dry holes. Magnolia Petroleum Co.'s No. 1 Shannon, SE NE SE, Section 14-19-4e, dry and abandoned at 3,770 feet. Olean Petroleum Co.'s No. 3 Ellis, NW NE NE, Section 23-19-4e, is dry and abandoned at 3,878 feet. Magnolia Petroleum Co. has the following dry holes in Section 24-19-4e, on its Pleasant lease: No. 3 Pleasant, NW NE NE, total depth 3,749 feet; No. 4, SW NE NW, total depth, 3823 feet; No. 6, NE SW NW, total depth 3,812 feet. Also its No. 1 School Land, NW NW SE, Section 36-19-4e, is dry and abandoned at 4,018 feet. Twin State Oil Co.'s No. 1 J. Kalb, NE NE NW SE, Section 5-19-5e, had sand at 3,693-3,703 feet and made 10 bbls. Deep Rock Oil & Refining Co.'s No. 1 Ostrander, CSL SW NW, Section 23-18-3e, is making 25 bbls. from sand at 4,320-24 feet. Its No. 3 Shannon, CSL SE SW, Section 23-18-3e, is shut in for 32,000,000 feet of gas. Total depth 4,256 feet, and No. 4, SW SE SW, for 33,000,000 feet of gas, total depth 4,270 feet. Homa Gas Co. has a dry hole in its No. 2 Ellis, NW SW NW, Section 1-18-5e, at a total depth of 3,560 feet.

Creek County New Work

Burlingame & Sharp's No. 11 Unallotted, NE SW NW, Section 13-19-8e, is a location. Gled Oil Co. has rig up for No. 5 Ross, NE NW SW, Section 13-19-8e. J. B. Grieves' No. 6 T. Lowe, CNL NW NE, Section 13-19-8e, drilling at 400 feet. Devonian Oil Co.'s No. 5 B. Miller, CEL SW NE, Section 14-19-8e, rig. Roxana Petroleum Corp. is spudding No. 1 Roy Clark, NE SE NW, Section 18-19-9e. Prairie Oil & Gas Co.'s No. 52 S. Rector, SE SW SW, Section 5-18-7e, is a rig. Riverside Oil & Refining Co. is rigging up for No. 2 Riverbed, NE SW SW, Section 5-18-7e. Shaffer Oil & Refining Co.'s No. 1 Jones, NE NW SW, Section 26-18-7e, rig. Magnolia Petroleum Co.'s No. 1 Landon, SW SE SW, Section 32-18-7e, drilling at 360 feet. Regal Oil Co. is building rig for No. 29 Bigpond, NW NE SW, Section 6-18-12e. Sunray Oil Co.'s No. 8 Sango, CSL SE NW, Section 6-18-12e, spudding. Transcontinental Oil Co. has rig on the ground for No. 1 Unallotted, CEL NE NE, Section 20-17-8e. Barnsdall Oil Corp. is building rig for No. 4 Mitchell, NE SE SW, Section 22-17-8e. Transcontinental Oil Co.'s No. 2 Mitchell, CEL NE SW, Section 22-17-8e, drilling at 120 feet. E. P. Harwell's No. 1 Chisholm, CSL NE SW, Section 3-17-9e, drilling at 400 feet. Arnold and others' No. 1 L. Self, SW SE NW, Section 2-17-10e, is a rig. O. M. Ireland's No. 1 S. Smith, NW NW SE, Section 11-17-10e, is drilling at 350 feet. Pontiac Oil & Gas Co.'s No. 1 R. Fulson, CNL NW SW, Section 13-17-10e, drilling at 300 feet. Ted-Ray Oil Co.'s No. 1 L. Brink, SE SE SW, Section 13-17-10e, rig. O. P. Stover and others' No. 1 Thomas, SE SE NE, Section 16-17-10e, location. Jackson & Wise, rigging up for No. 3 Dickson, NW NW SW SW, Section 20-17-10e. Kirchner and others have rig on ground for No. 3-A Ko-Co-Con-Nay, CEL NE SE, Section 23-17-10e. Mid-Continent Petroleum Corp. has spudded No. 3 Dawson, SE NW SW, Section 24-17-10e. Pioneer Petroleum Co. is building rig for No. 9 Bucktrot, CEL NW NE, Section 24-17-10e. J. H. Wright's No. 10 Tahkaney, SE NE NW, Section 24-17-10e, drilling at 300 feet. Love & Myers' No. 1 Hendrickson, CNL SE NW, Section 21-16-

(Continued on Page 156)

THREE NEW WELLS IMPROVE OUTLOOK OF NIGGER CREEK AREA NEAR MEXIA

By Special Correspondent

MEXIA, Tex., Aug. 16.—The prospects of the Nigger Creek Pool, in Limestone County, Texas, have been greatly improved during the past week. The completion of three good wells southwest of the Transcontinental Oil Co.'s No. 1 Brown (the discovery well of the pool) and two wells directly west of the Rosson, have led to the belief that another fault line pool is in the process of development.

All of the new wells are located in territory which the geological fraternity has found favorable. Consensus of opinion of geologists who have studied the region indicates that the field may run for some distance and conform to the general outline of the narrow fault line pools which have been uncovered in this area.

With the finding of another dry hole in the northeast section of the pool the interest in this section of the pool has been greatly diminished. Practically all of the wells in the northeast part of the pool are shut down, and it is questionable if any of them will resume drilling.

Straight west of the Transcontinental's No. 1 Rosson, Moss & Keeling's No. 1 Rosson made 740 bbls. the first 4½ hours from sand at 2,843-47 feet. One location south of this well, the Transcontinental Oil Co.'s No. 2 Rosson, started flowing 130 bbls. an hour from a total depth of 2,858 feet.

Southwest of the discovery well, three wells have been drilled in: Transcontinental Oil Co.'s No. 3 Rosson had the sand at 2,829-40 feet, and made 1,700 bbls. the first 14 hours; No. 2-A Rosson, a diagonal offset to No. 3, made 2,961 bbls. from sand at 2,831-41 feet. The production of this well was one-half of 1 per cent b. s., and the well made no water. The other well to be completed was the Godley Oil Co.'s No. 1 Rosson, an offset to the two wells just mentioned. This well made 1,843 bbls. the first 24 hours, and its production was two-tenths of 1 per cent water.

The daily production of the Transcontinental Oil Co.'s No. 1 Rossen is decreasing. For the 24 hours ending Monday morning at 7 a. m., it made 290 bbls. and this was 60 per cent b. s. The same company's No. 1 Cochrun, which was put on the pump during the week, made 630 bbls., which was 20 per cent b. s., and 15 per cent water.

SILICEOUS LIME WELL INTERESTS COWLEY COUNTY, KANSAS, OPERATORS

By J. L. Dwyer
Staff Correspondent, Kansas Fields

The past week was exceptionally quiet in Kansas. The wells which were drilled in were all "inside" locations. Considerable interest is shown in the region around the J. A. Hull Co. and Shaffer Oil Co.'s siliceous lime well in Section 15-32-4, Cowley County. There has been considerable trading done in this section owing to the good showing of the well, which is about eight weeks old and still making better than 800 bbls. daily. Within two or three weeks some of the drilling wells close by should reach the sand and a better idea of the pool will be obtained.

Cowley County Completions

Ruby & Brunnell's No. 1 E. Pollack, NE NE SW, Section 15-34-4e, dry and abandoned at 3,645 feet. W. Phillips and others' No. 12 Caldwell, NW SE NW, Section 28-33-3e, shot with 5 and 10 quarts from sand at 3,249-72 feet, made 25 bbls. of 41 gravity oil. Grey & Bunnell have a dry hole at 3,355 feet in No. 1 G. H. Hulme, NE SE NW, Section 14-30-6e.

Cowley County New Work

Everett Dehart is rigging up No. 1 Wirth, SW SW NW, Section 25-32-1e. J. S. Cosden's No. 1 F. Clober, NE NE SW, Section 16-31-7e, rig.

Butler County New Work

E. Wilcox has spudded No. 1 H. W. Baer, NE SE NW, Section 21-29-4e. Clark & Irwin's No. 1 G. Showwalter, SW SW NW, Section 14-28-3e, spudding. Mid-Kansas's No. 1 Cline, NW SE SW, Section 3-28-6e, is a rig. John Herron's No. 1 E. A. Jones, SE SE NW, Section 30-28-7e, drilling at 770 feet. Phillips Petroleum Co.'s No. 2 Reynolds, NE SW NW, Section 16-27-6e, drilling at 550 feet. Richmond Drilling Co.'s No. 1 E. P. Rose, NE NE NW, Section 17-27-6e, drilling at 550 feet. W. C. Hoyt's No. 6 S. S. Clark, CWL SE NW, Section 20-27-6e, is a rig. In Section 12-27-7e, the following companies have rigs up: Empire Gas & Fuel Co.'s No. 1 Worrell, SW SW SE; White Eagle, No. 2 Stewart, SW SE SW, and No. 3, NE SE SW. Phillips Petroleum Co. has rigs up for No. 1 Stewart, NE NE NW, and No. 2 Stewart, NW NE NW, Section 13-27-7e. Mid-Kansas is moving in timbers for No. 3 Harris, NE SE NE, Section 22-27-7e. Manhattan Oil Co.'s No. 1-A Jones, SE SE NE, Section 18-26-6e, is a rig.

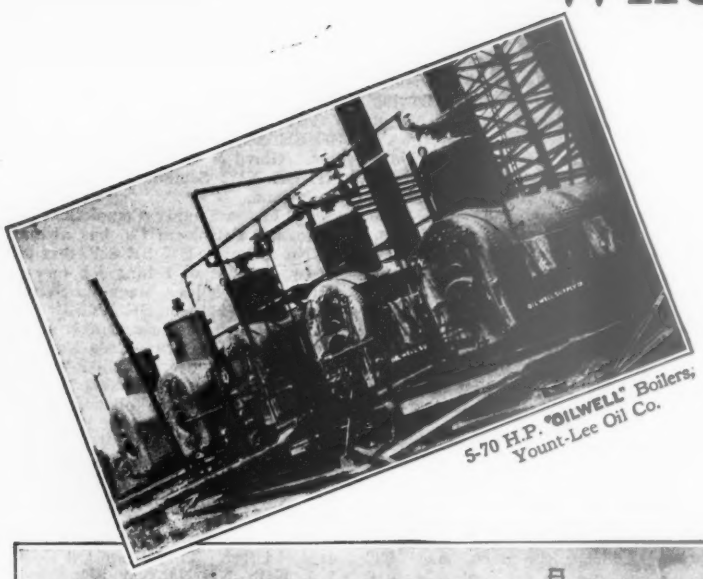
Butler County Completions

Shawver and others' No. 1 Sheldon, SE NE NW, Section 3-28-6e, is dry and abandoned at 3,108 feet. Magnolia has a dry hole in No. 5 Skaer, NW NW SW, Section 25-27-4e, at a total depth of 2,685

(Continued on Page 139)

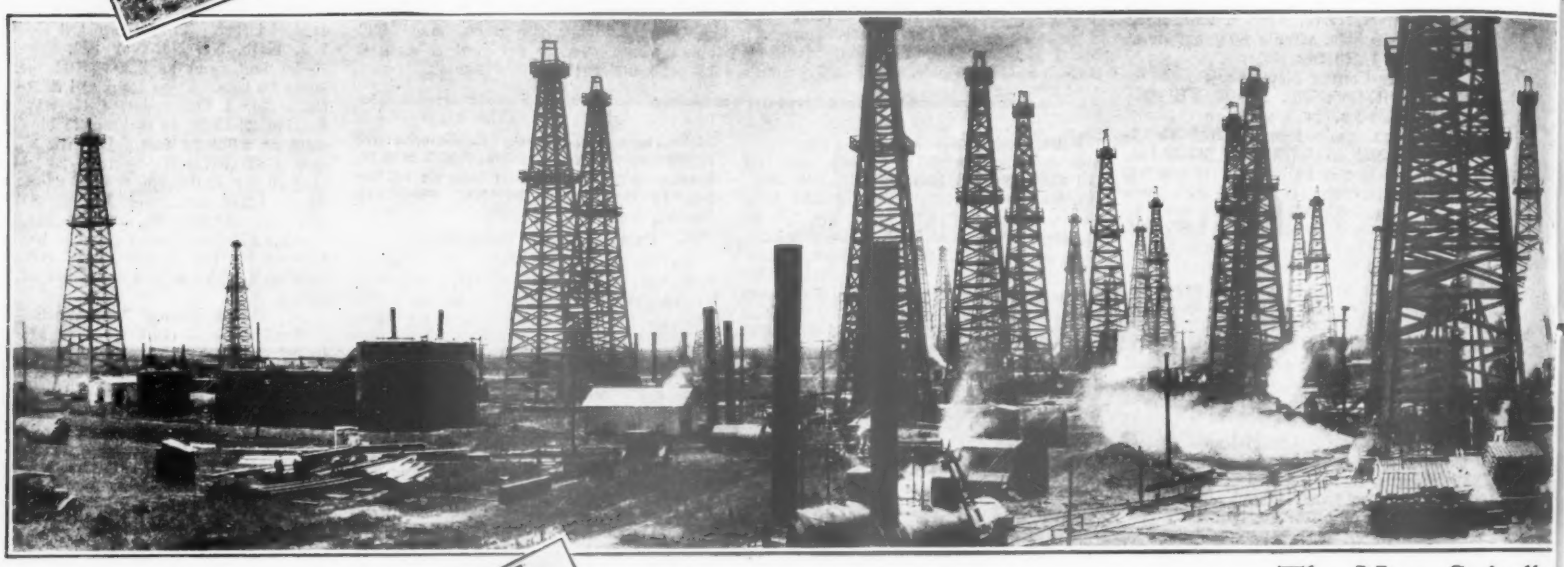
When Spindle Top Came

"OILWELL" Boilers

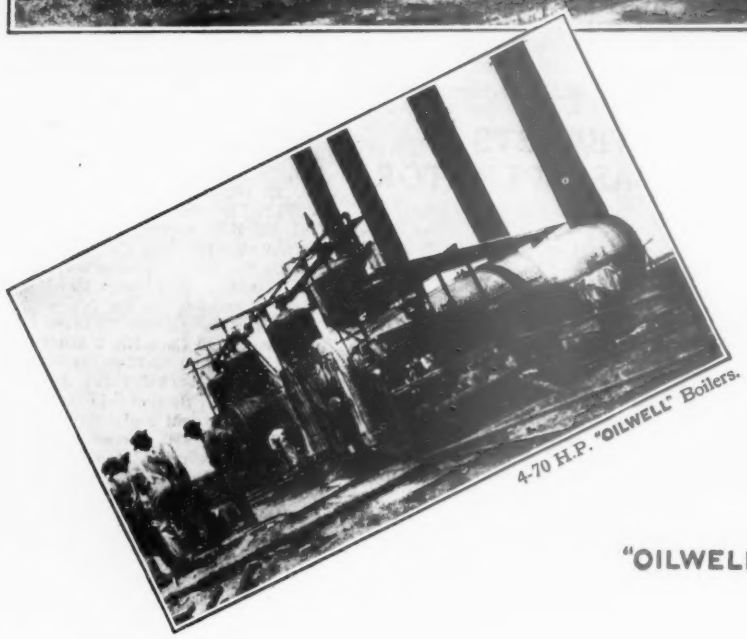


5-70 H.P. "OILWELL" Boilers, Yount-Lee Oil Co.

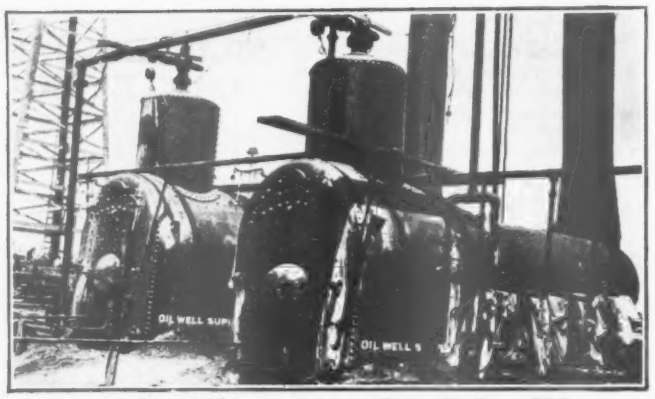
Up to July 16, 1926, use in this field were and of a total of 18 were "OILWELL".



The New Spindle Top



4-70 H.P. "OILWELL" Boilers.



2-66 H.P. "OILWELL" Boilers, Harvey & Rush—Rio Bravo Oil Co.

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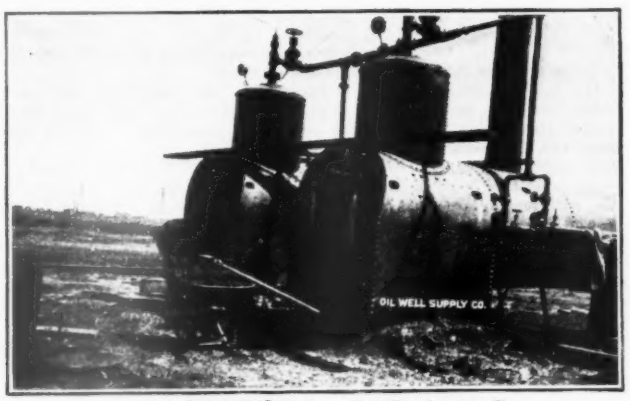
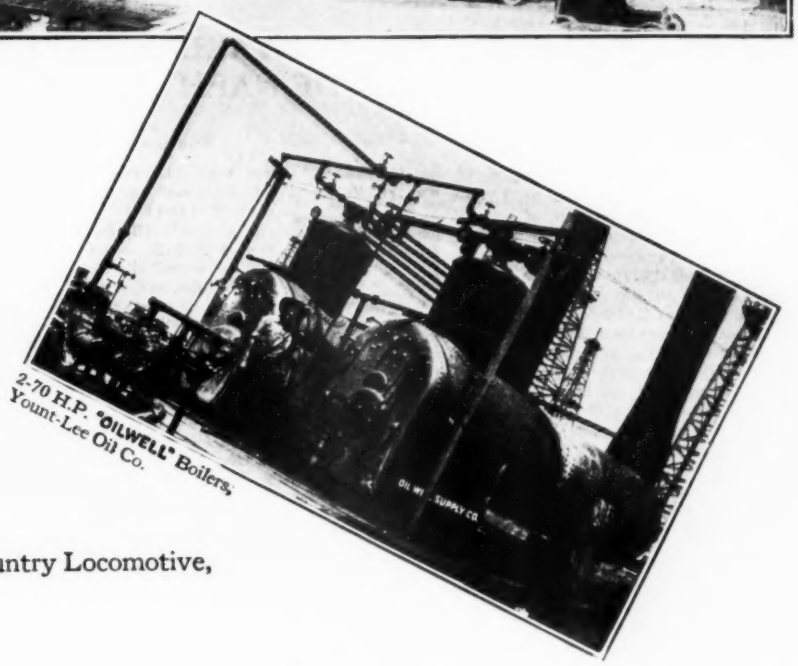
There must be a reason.

4-70 H.P. "OILWELL" Boilers, D. B. McDaniel—Yount-Lee Oil Co.

Top, Texas Field



4-45 H.P. "OILWELL" Boilers, Gulf Production Co.



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2,500-bbl. Well in First Wall Creek

Best New Well in Rocky Mountain Region. Dome Structure on the Colorado-Wyoming Line Shows Oil

By F. B. Taylor
Staff Correspondent, Rocky Mountain Area

CASPER, Wyo., Aug. 14.—A 2,500-bbl. well in the First Wall Creek sand in the Salt Creek, Wyo., Field; the laying of a natural gasoline pipeline from the Lance Creek Field to Manville, Wyo.; the discovery of oil on another dome structure on the Colorado-Wyoming line and the demand of the State of Montana and some Sunburst, Mont., producers for a premium over the posted price of oil were among the outstanding news features of the Rocky Mountain division.

The Ohio Oil Co. will shortly complete the gasoline line being laid from the Lance Creek Field to Manville, and the same company has already started work on a gas line from Oregon Basin to Cody.

The Lance Creek line now being laid is a 2-inch pipe about 20 miles long and will carry gasoline from the new condensing plant in Lance Creek to Manville, a distance of about 22 miles.

The line in the Oregon Basin is a 6-inch line and will carry gas from the Ohio Oil Co.'s well in the Oregon Basin to the city of Cody where the gas will be utilized for domestic service. Both lines are expected to be in service this fall.

2,500-Bbl. Well in Salt Creek

The Salt Creek Producers Association has another big well in the first Wall Creek sand in the Salt Creek Field. This well was reported as a good well in the First Wall Creek sand three weeks ago and started off at 350 bbls. daily. A shot was tried this week and the well is now making 2,500 bbls. daily. This production is coming from the first sand that produced oil in the main part of the field and it has been held by some that the first sand was about done for as far as large wells are concerned. The new strike of the Salt Creek Producers disapproves this theory.

The Midwest Oil Co. completed a first sand well in Section 23-40-79 at 1,255 feet that will make a pumper of about 20 bbls., and in Section 26-40-79 the company has a producer at 1,119 feet, making 360 bbls. natural. The same company drilled to the Lakota sand in Section 25-40-79 at 2,020 feet, and being shut in this well swabbed 65 bbls. daily.

The Midwest Oil Co. and the Wyoming Associated Oil Co., drilling in Section 13-40-79, found a small producer at 2,015 feet in the second Wall Creek sand and will shoot.

The Wyoming Associated Oil Co found a small producer in Section 34-40-79 at 1,938 feet and another of the same kind in Section 35-40-79 at 1,459 feet, also in Section 25-40-79 at 1,675 feet that will be pumped after a shot.

The Wyoming Oil Fields Co. drilled in a producer in the Lakota sand in Section 26-40-79 and shut the well in without making a test. The pay was found at 2,398 feet.

The Salt Creek Consolidated Oil Co. has a producer in Section 31-40-78 at 1,972 feet that will make about 15 bbls. a day.

300-Bbl. Well at Fort Collins

In the Fort Collins Field in Colorado the Union Oil Co. of California brought in the well on the Larsen lease, in Section 19-8-68, with an estimated production of 300 bbls. at 4,490 feet. The Bubbles Lake well in Section 7-9-68 is making 150 bbls.

The Texas Production Co. brought in a duster in the Moffat Field, Section 15-4-91. This well went to 3,900 feet and was to have been drilled deeper but lost the hole and has been abandoned.

On the Elk Springs Dome, in Moffat County, the Union Oil Co. of California has abandoned the wildcat drilling in Section 31-5-98 at 3,973 feet after reaching the Sundance sand. The casing is now being pulled.

Refinery at Craig

The Craig refinery, now under construction at Craig by The Texas Company is expected to start fires under the stills about October from the way the work is progressing at present. A fire destroyed two small tanks of oil at the Moffat Field last week and the loss is estimated at $15,000. The field workers managed to keep the flames from reaching other tanks close by.

Wildcats

The Repollo wildcat drilling about a mile from Boulder, Colo., where a showing in the shale awakened much interest a short time ago, has reached a depth of 3,355 feet and is drilling. This well is expected to make a test of the Dakota sands about 4,500 feet deep and if no more oil is found, the hole will be cased back to the showing found a few weeks ago and this strike tested.

The Cane Creek well of the Midwest Refining Co. and the Utah Southern Oil Co. is drilling after having set casing in the black shale. The tools are now at 3,447 feet and still in the same black shale. The Shaffer Dome well of the same companies, located on the Shaffer Dome about 5 miles south of the Cane Creek well, is drilling at 1,750 feet and is under reaming to set the 10-inch casing. In the Lockhart Canyon structure, near Moab, Utah, the Utah Southern Oil Co. has a camp built and the derrick is nearly finished. On the Cedar Mesa structure in San Juan County, the Utah Southern Oil Co. is rigging up on the well to be drilled jointly by the Utah Southern Oil Co., the General Petroleum Corp. and the Utah Oil & refining Co.

The Western Oil Leasing & Royalty Co. drilling in the Rangely Field in Colorado, found a good producer in the shale at 596 feet and the oil is 50 degrees gravity. This well was located along a fault in the Rangeley development and it now appears that the Western Oil Leasing & Royalty Co. has a new development in that field that will extend beyond the present area. The operators consider that more oil should be found at greater depth and this company is starting a deep test on this fault.

The Rangeley Field is a shale oil production and sometimes some very good wells are brought in at shallow depths. The Raven Oil & Refining Co. brought in a producer good for 100 bbls. last June there, at 600 feet deep.

The Florence, Boulder and Tow Creek Fields in Colorado are also shale oil fields where the production comes from the shales instead of a true sand formation. These shale fields are considered treacherous in the main, but the Colorado fields hold up very well.

Want a Premium in Montana

The State of Montana evidently wants all that is coming to it according to a recent decision of the Attorney General's office. The Rice Oil Co. is operating on some state-owned land in the Sunburst Field and this company obtains a premium over the regular market price for its crude. The state has a royalty of one-eighth and this oil was being marketed at the regular posted market price, but the authorities raised an objection and now want a premium the same as other firms are getting for their oil.

It is reported that only a comparatively few operators in the Sunburst Field are selling their oil at the posted price of $1.05 per barrel. Instead, any producer can obtain a premium over the market if he wishes and the small skimming plants and refineries located near the field have trouble in getting any oil at the posted quotation.

The city of Kalispell has been considering placing paving on its streets for several years, but this year the matter still remained undecided because of the heavy costs. However, a number of citizens made up a committee to examine the possibilities of using oil to lay the dust on the streets and Kalispell has turned to this method in lieu of paving. The oil is obtained from the small refineries and skimming plants of the state and at a much lower cost than the regular road oils can be had and the results so far have made the citizens of Kalispell enthusiastically in favor of this method as against the regular paving. The cost is so low that the streets can be oiled every year for less than the interest on the bonded indebtedness the city expected to pay for the paving program outlined.

Important Deal in Sunburst

An important deal was consummated affecting leases of the Rice and Fulton interests in the Sunburst Field, the past week. This deal places 400 acres of productive territory in the Sunburst Field, as the property of the Julian Petroleum Co. of California and the Julian interests paid $3,000,000 for the acreage. The Standard Oil Co. of California and the California Petroleum Co. were also bidders for the same leases, but the Julian Petroleum Co. closed the deal ahead of the other interests. The Julian officials managed to do this by employing airplane transportation between Los Angeles and Shelby.

From the way the wells are going down in the Sunburst Field there should be about 15 new completions reported next week.

The largest well brought in the past week was that of the Big West Oil Co. on the Allen lease, which is good for 200 bbls. daily. The Homestake Exploration has a 25-bbl. producer on its lease at 1,445 feet, Section 30-35-1. The Fifty-Six Petroleum Co. brought in a good well in Section 32-35-1 that will equal or do even better than the Big West well.

The Great Northern Railroad is about ready to start using oil as fuel on all its locomotives. Oil fueling stations have been placed at Williston, N. Dak.; Glasgow, Harve, Clancy, Cushman and Butte, Mont. The engines will also be fueled at Shelby, but here the local refinery will have a station and deliver fuel oil direct to the engines.

New Strike in Colorado

A new strike is reported from northern Colorado. On the Hiawatha Dome, which lies on the Wyoming-Colorado line and about 50 miles southeast of Rock Springs, W. A. Myers and others drilled a wildcat and have a flow of gas estimated at 30,000,000 feet.

This well is across the line in Moffat County, Colorado, on a permit taken by Florence Wilson and the well is located in Section 22-12-100. It has been generally considered that the Hiawatha Dome is Tertiary and that the Cretaceous

(Continued on Page 156)

TURNER VALLEY WELL MAKES 80 BBLS. CRUDE NAPHTHA WITH TOOLS IN HOLE

By Victor Lauriston
Staff Correspondent, Canadian Fields

CHATHAM, Ont., Aug. 14.—In the Turner Valley Field southwest of Calgary, McLeod Oil Co.'s No. 2, LSD 16, Section 1-20-3w5, is trying to recover the lost tools, which are frozen in the limestone at the bottom of the 3,772-foot hole. At intervals between fishing operations, the well has been delivering crude naphtha through a separator to the Royalite Oil Co.'s pipeline, the production going to the Imperial Oil, Ltd.'s refinery at Calgary. On the basis of the 12-hour run during the nights with fishing in the day time, the well with the present makeshift arrangements is delivering around 80 bbls. a day. The crude naphtha from the well is practically the same gravity, around 73 degrees Baume, as Royalite's No. 4 production.

A pipeline with a number of drips will be run on the company's property, with two separators to handle a 17,000,000-foot gas flow. George Sammons, oil technologist in charge of the McLeod operations, estimates that when the tools are got out the well will make 17,000,000 feet a day, with a corresponding increase in the crude naphtha production.

Vulcan Oils, Ltd's. No. 1, LSD 11, Section 13-20-3w5, is down 4,890 feet and fishing for a lost bit. Great West Oil Co.'s No. 1, SE Section 7-20-2w5, has finished setting 10-inch casing at 3,446 feet and is drilling at 3,550 feet. This well has the longest string of 10-inch in Canada; its log corresponds closely with that of Royalite's No. 4.

Illinois-Alberta Oil & Refining Co., LSD 14, Section 12-20-3w5, is at 3,678 feet and shut down. At this depth it has a 4¾-inch hole with casing set in the top of the Madison limestone. The test will be carried down with a diamond drill, starting with 2½-inch core, and is now waiting for the diamond drill outfit.

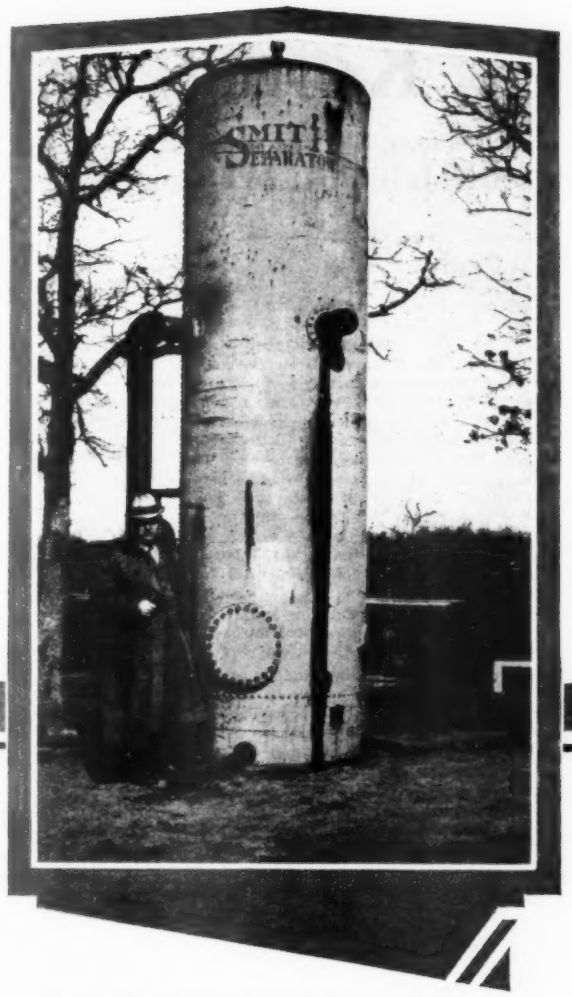
Dalhousie Oil Co.'s No. 1, LSD 4, Section 18-20-2w5, is at 3,547 feet and drilling past the lost bit which has been driven into the side of the hole. Dalhousie's No. 3, LSD 10, Section 13-20-3w5, is being cemented up again to the 8½-inch casing. Dalhousie's No. 5, LSD 16, Section 30-19-2w5, is at 975 feet and drilling.

Fishing Long Lost Tools

Dutch Canadian Oils, on the old Record No. 1, LSD 14, Section 4-19-2w5, is fishing for the tools lost in the 4,327-foot hole in 1921. Sentinel Oils, Ltd., Section 8-20-3w5, has spudded in. This test started cellar on a Monday and on Friday night of the same week had the tools running. In the north end of the Turner Valley, Stockmens Oil Co., Section 27-30-3w5, is down 200 feet and setting the 20-inch casing. No trouble was experienced with surface water or boulders. Joe and Sim Scruggs are drilling this test.

Cooper-Nanton Oils, Ltd., LSD 2, Sec-

(Continued on Page 129)



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Find Clinton County, Kentucky, Pool

One Well in New Lillydale Field, Near Tennessee Line Makes 408 Bbls. and Another 240 Bbls in First 24 Hours

By Whit
Staff Correspondent, Kentucky-Tennessee

ALBANY, Ky., Aug. 16.—Clinton County, Kentucky, of which Albany is the county seat, is enjoying the prospect of a new oil boom of promising dimensions. Two recently completed wells on Wolf River, in the southwest corner of the county, on the Tennessee line and near the southeast corner of Cumberland County, have created widespread interest and many operators are visiting the new pools. Several drilling contracts have been let in the past few days and many wells are expected to be drilled in the surrounding territory.

The first of these wells, drilled by Ohio parties under the style of the Clinton Oil Co., is located on the Edward Upchurch farm, on the south side of Wolf River where the river makes a horseshoe bend toward the north. The second well located on the J. H. and J. J. Pierce farm, and drilled by the McClintock Oil Co., of Cleveland, Ohio, experienced and old-time operators, is just across the river from the Upchurch well about one-fourth mile, and is in a bend of the river which loops toward the south. These wells are about 1 mile below the mouth of Illwill Creek, which drains the western portion of Clinton County.

The Upchurch well put 500 bbls. of oil in the tank in 30 hours, that being all the tankage available so far. The Pierce well flowed a 250-bbl. tank full at the rate of 15 bbls. an hour when first brought in, and a few days later, after a 500-bbl. tank had been erected, it filled this tank in 48 hours. These wells are each 515 feet deep and found their pay in the lower Sunnybrook horizon.

Some geologists claim the main backbone of the Cincinnati Arch passes down the valley formed by Illwill Creek, Wolf River, Obey River and Cumberland River, which streams run almost due southwest through Clinton County, Kentucky, and Clay County, Tennessee. Along this valley, during the past three years, four separate shallow pil pools have been opened, namely, Tinsley's Bottom, Celina, Willow Grove and Lillydale, the last named being the new find, which is near Lillydale Postoffice. Then also the productive Colark Pool, near Celina, in Clay County, Tennessee, must also be reckoned with, as it has close to 3,500 bbls. of crude in storage at this time, awaiting the construction of a pipeline to move the crude.

These two new strikes are about 2 miles due south from Fanny's Creek, another active producing pool in Clinton County. Fanny's Creek is due east from Sulphur and Kettle Creeks, the two best producing pools in the famous Cumberland County Field. These facts would indicate that two lines of development are likely to converge in the Lower Illwill section of Clinton County. Geologists have already noted several structures in this section and further developments will be watched with interest. The two gushers are also located to the southeast of Peytonsburg. It is currently reported that the Paragon Development Co. will extend its Fanny's Creek pipeline to the new Upchurch and Pierce wells at once.

Good Showings Before

Clinton County has experienced some spasmodic drilling at intervals for 25 years and good showings of oil and gas have been found in several parts of the county. Nearly every well drilled on structure in this county and which has gone to the Sunnybrook formations or deeper has shown some oil or gas or both. Most of the dry holes, which are not very numerous, have been located without reference to geology and have been too shallow to prove anything. The Beaver sand, which is an important producing horizon in Wayne County to the east, covers only the eastern edge of Clinton County and crops out near the center, but the deeper producing strata have been found in all parts of the county.

Owens, Long and others, from Texas, have recently established headquarters at Livingstone, Tenn., and have started two wells in the Lillydale area, one on the Jan Scott farm, in Clinton County, Kentucky, and the other on the G. M. Gamewell farm, across Obey River from Lillydale, Clay County, Tennessee. The Scott well is being drilled by H. W. Clark, an experienced contractor of Cooper, in the old Wayne County, Kentucky, Field.

O. M. Delaney, of Marietta, Ohio, in association with Albert Ewing, of Burkesville, formerly from the Illinois Fields, and Leslie Sell, of Hobart, Clinton County, have contracted to drill three wells on the Shipley heirs' lands, joining the Pierce farm. Ewing will do the drilling.

Week's Work

There was a scarcity of new completions for the week in all parts of the Kentucky-Tennessee areas. A summary of the week's work shows 17 completions, 14 producers with an initial output of 873 bbls., 2 dry holes and 1 gas well. Compared with the previous week, there were two more completions, one less producing well, 695 bbls. more production, two more dry holes and one more gas well. The wells were distributed by counties and districts as follows:

County—	Comp.	Wells	Prod.	Dry	Gas
Owensboro District	7	5	105	1	1
Clinton	2	2	648	0	0
Lawrence-Johnson	5	5	55	0	0
Cumberland-Monroe	1	1	40	0	0
Wolfe	1	1	25	0	0
Warren	1	0	0	1	0
Total	17	14	873	2	1
Previous week	15	15	178	0	0
Difference	2	1	695	2	1

Eastern Division

Six completions were reported from the eastern division of Kentucky during the past several days, the best of which was the Swiss Oil Co.'s No. 32 on the Sanford Lyon farm, in District 22-A of the North Weir Field of Lawrence-Johnson Counties. This well is estimated at 25 bbls. from the Weir sand. In the same district, the same company's No. 22 on the C. K. Doybne No. 1 farm, is estimated at 8 bbls. from the same formation. In District 22, the same company's No. 33 on the Caney Sparks farm is a 10-bbl. pumper. In District 33, same company's No. 21 J. M. Fyffe farm is good for 7 bbls., while No. 20 on the George Evans farm is rated at 5 bbls. settled.

The only other completion reported was the Petroleum Exploration Co.'s No. 4 on the Spencer heirs' farm, in District 6 of Wolfe County, which is said to be holding at around 25 bbls. and an exceptionally good well for that area.

A number of drilling machines are under operation in District 8, of the Irvine Field of Estill County. The Superior Oil Corp. is running three on the Simp Horn farm, and one on the Green Campbell farm. The Wood Oil Co. is running two on the William Neal farm, and the Reno Oil Co. one each on the Millard Ballard and Oscar Tipton heirs' farm. The wells in this area usually show a first 24 hours' gauge of around 10 bbls., the oil being found at a comparatively shallow depth.

Western Division

Spots in the western Kentucky division are quite active, the leading areas being the Owensboro district and the Glasgow Field of Barren County. The bringing in of the 408-bbl. well, the first 24 hours' gauge, by the Clinton Oil Co., on the Edward Upchurch farm, near Lillydale, in the southwestern part of Clinton County, south of Wolf River, and another in the same area of this county, were the leading features of the western part of Kentucky. The latter well is the McClintock Oil Co.'s test on the J. H. and J. J. Pierce farm, just across the Wolf River from the Upchurch well, which showed a 24-hour flow of 240 bbls. This area is destined for an active drilling play as many leases have been secured and others changed hands during the past several days, and drilling must be done according to lease agreements.

Quietude prevails in the Hopewell Pool, along the Cumberland-Adair County line where such bright prospects prevailed a few weeks ago. The only bad feature of these new developments is to secure a market for the product when found. The construction of pipelines in parts of several of the counties bordering the Kentucky-Tennessee line would bring out a heavy drilling campaign as many new structures have been found of recent date that look favorable for the accumulation of oil, but the only thing that will find it is the drill.

The Glasgow Field of Barren County, one of the most active counties of Kentucky, and the Scottsville Field of Allen County, both failed to report any completions during the week. The Owensboro district of Hancock, Ohio, and Daviess Counties are now attracting most attention in the western division and numerous wildcat ventures are to be started far away from producing wells. The Ohio Oil Co., which has secured a large acreage in the Owensboro district, has brought in several new and improved drilling rigs and will start in a short time on extensive exploitation of its leases. Miller & Damron, well known contractors, drilled the Ambrose and Ellis & Sheflin wells for this company, 10 miles in advance of commercial production and found paying producers which will spur on more active work by this large concern.

Owensboro District

Seven completions were made in the Owensboro district of which five were producing wells, one dry and one gas, although the gasser may be drilled to a greater depth in hopes of finding oil in commercial quantities, being located in advance of present production. This is the test of George Randolph on the Weddingfield lease, which struck a heavy flow of gas in a stray sand at a depth of 400 feet. The owner has concluded to go down in quest of oil, but meanwhile will utilize the gas for fuel purposes in deeper drilling.

A well that is being closely watched is a test being made by the Rex-Pyramid Oil Co. on the J. L. Sennett 210 acres, 10 miles south of Whitesville, and far removed from any producing well. Last reports from this well was that it had passed through the lime at a depth of 860 feet.

The Ohio Oil Co. has drilled in an offset well to the Ambrose farm well, in Daviess County, on the Ellis-Sheflin farm, and those that have visited the well pronounce it to be showing as good as the Ambrose well, which was credited with an initial of 15 bbls. This is in new territory, 10 miles southwest of production and indicates the widening of the oil producing area.

Best Completion

The best completion reported for the week is the Penn-Indiana Oil Syndicate's No. 8 on the Laura Mercer 84 acres, in the Swope Pool area, 400 feet east of No. 6 on the same farm. The initial is given at 40 bbls., being an extraordinary producer for the district. No. 9, same farm, is under way.

In the Midkiff Pool, the White Plains Oil & Gas Co.'s No. 6 on the J. J. Midkiff farm, and located 400 feet southeast of No. 5 on the same farm, is estimated

(Continued on Page 116)

TWENTY-ONE PRODUCERS OUT OF 26 WELLS DRILLED IN SAGINAW FIELD

By Whit

SAGINAW, Mich., Aug. 14.—The Saginaw Field is proving up quite an area of territory, as two of the new producers reported late last week are a little in advance of production to the south and the east, making 20 producing wells out of 21 wells drilled to the north and west of Saginaw, the average daily production being close to 250 bbls., all production coming from the Berea sand.

The Saginaw Prospecting Co.'s No. 1 on the Waterworks Park subdivision near Madison and Deindorfer Streets, being the eighteenth well to be completed, struck top of the Berea at 1,835 feet and drilled 10 feet in to a total depth of 1,845 feet and was shot with 40 quarts. This well represents a slight extension of the producing area for it is about 900 feet south of the company's No. 2 and 3 wells and about three-eighths of a mile west of its No. 6 well and in the southwest quarter of Section 14, Saginaw Township, Saginaw County. It is an offset to the well started by Charles P. Brandt on the Walker property near Madison and Deindorf Streets. The well is somewhat deeper than most of the producing wells in the field, though its depth is only one foot greater than No. 1 on the Spatz farm, and 9 feet deeper than No. 1 on the John Egerer farm, which is one of the best producers in the Field. It is estimated as showing for 20 bbls.

This company also drilled in its No. 1 on the John Bremer farm, on the Shattuck Road about half a mile west of Hermansau and well within already proven territory, for it is on a line between the four producing wells of the Sun Oil Co., and the close-in territory that the Prospecting Co. already has drilled in. Its depth is regular, being closely in line with what has been found in the nearby Sun wells and struck top of Berea at 1,828 feet and drilled 10 feet in the sand, showing for a 20-bbl. initial producer, similar to other wells in the immediate vicinity. The third completion was the Sun Oil Co.'s No. 2 on the Charles Schoenheit farm, near the southwest corner of the southeast quarter of Section 11, which struck top of Berea at 1,828 feet and went 10 feet in, showing for 20 bbls. This makes the Sun Oil Co.'s fourth producer in the field, all being located just north of the Shattuck Road. This well is a little farther west than the other wells of the Sun Oil Co.

Saginaw Field Notes

The Jack Hendricks and others' of Detroit, well on the Bay Road just north of the division of Saginaw and Bay Counties, but in Bay County, on the Leonard Gehringer farm, 8 miles north of Saginaw, is getting close to the depth required to strike the Berea sand. This is an important test to the northwest. The well

(Continued on Page 116)

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West Virginia Leads in Producers

Henry District, Clay County, May Go to 2,500 Bbls. Daily. Ritchie County Gets Largest Wells. Harvey District Starts

By D. S. Wakenight
Staff Correspondent, Eastern Fields

PITTSBURGH, Pa., Aug. 16.—The first weeks in August went on record as the dullest since the first of the year. Fewer wells were completed in the eastern fields and fewer good producers. July was the banner month for new production in the southwest Pennsylvania fields. It was greater in West Virginia than at any previous time in more than two years and exceeded that of southwest Pennsylvania more than for any one month in four years.

The greater part of the new production in West Virginia came from Ritchie and Clay Counties. The largest wells were found in Ritchie County, but those in Clay County were of a good average size. Henry district, in this county, is still the most active district in West Virginia. A few of the late completions are above the average sizes. With the wells now completed the daily production is above 1,500 bbls. a day and with the completion of the wells now drilling should show considerable increase. Some are predicting a production of 2,500 bbls. or more before the producing limits have been defined.

Operators in Morris Township, Greene County, Pennsylvania, are sanguine that the production of the Gordon Sand Pool will show quite an increase within the next two or three weeks. The wells now drilling are favorably located and well within the producing limits of the pool as now defined.

Drilling old wells that are no longer profitable producers to the lower sands is still a feature in Marion, Monongalia, Lewis and Harrison Counties. In a good many instances this method has proven satisfactory. Frequently good gassers are found by drilling down. Few old wells or new wells are now abandoned before drilling through all sands.

Development in Mingo County

The active development work in Harvey district, Mingo County, has begun, the Eureka Pipe Line having connected up the field with its main line at Hamlin. The first oil was pumped through the line last week. The Old Colony Oil Co. is the most active in development work in this district. This company has just completed No. 17 on the Logan Cannel Coal Co.'s property and is a natural producer good for 5 bbls. a day in the Maxon sand. The same company's No. 12, on the Costerman estate, is a gasser in the same formation good for 1,000,000 feet.

On the Logan Cannel Coal Co.'s property, the Old Colony Oil Co. is drilling No. 18, spudding in at No. 19, and building the rig for No. 20. Rig timbers are being placed for No. 21.

In Wayne County, the Old Colony Oil Co. is drilling No. 7 on the Caldwell-Colton tract and building the rig for No. 8 on the same tract. In Harvey district, Mingo County, offsetting the Old Colony Oil Co.'s Nos. 16 and 17, on the Logan Cannel Coal Co.'s tract, the Red Jacket Coal Co. is building the rig for a test on its own property.

The oil in Harvey district, Mingo County, is found in the Maxon sand at a total depth of about 1,600 feet. Even with a low market it makes it profitable to drill for light wells as the cost is not heavy and the wells show good staying qualities. The producing area of the pool has not been defined and may contain considerable acreage.

There is some doubt as to the future of Wayne County. One of the largest operating companies has spent a great deal of money in an effort to develop a strictly new pool in this county. Up to the present it has not met with much success.

Best Completions of Week

Very few better than average wells were completed during the week. In the deep sand territory in Section 25, Washington Township, Hocking County, the Gordon Oil Co. completed in the Clinton sand, No. 8 on the William Stone farm. It produced 46 bbls. the first 24 hours after shot. Most of the completions are located in shallow sand territory and without an exception, light pumpers.

The West Virginia fields also completed one good well. It is the Dawson Farm Oil Co.'s second test on the Viola Dawson farm, in Grant district, Ritchie County. It is a natural producer and placed 85 bbls. to its credit the first 24 hours after drilled into the Big Injun sand.

Late Completions

In Henry district, Clay County, West Virginia, the South Penn Oil Co. is leading in development work. Nos. 26, 28, and 31, on the O. D. Stockly farm, have been completed in the Big Injun sand. They are good for 2, 35 and 15 bbls., respectively. On the R. S. Kyle farm, in the same pool, the South Penn Oil Co. has completed Nos. 7, 8, and 9 good for 10 to 15 bbls. a day. There are about 25 wells drilling and rigs up in Henry district. There are more wells due in the sand which should when completed show an increase in the production of the pool.

The gas companies are still very active in a number of counties. The most work is in Lincoln, Kanawha, Boone, Putnam and Cabell Counties.

Ritchie County

On Hughes River, Grant district, Ritchie County, P. H. McDonough has drilled a test on the N. D. Mason farm into the Big Injun sand showing for a 15-bbl. pumper. On the Buffalo Run, same district, the Hope Construction & Refining Co. has made a location on the S. Tennant farm. The same company has also made a location on the Susan Amos farm. The Mellon Oil Co. has a gasser in the Big Injun sand at a test on the A. H. Phillips farm. In Murphy district, W. A. Bickerstaff & Co. have a gasser in the same formation at a test on the Fairview M. E. Church lot.

In Union district, Tyler County, the Sugar Camp Oil Co.'s No. 3, on the Ada V. Parker farm, is a very light pumper in the Maxon sand. In Grant district, Pleasants County, George Pickens has an 8-bbl. pumper in the Big Injun sand at a test on the Rebecca Graham farm.

Duster in Wetzel County

In Church district, Wetzel County, the Manufacturers Light & Heat Co.'s test on the Hannah Stump farm, is dry and abandoned. In Clay district, the Kimble Oil & Gas Trust Co. has a gasser in the Big Injun sand at a test on the Kimble-Murphy farm.

In Smithfield district, Roane County, the United Fuel Gas Co. has completed and shot in the Big Injun sand a test on the F. F. Harless farm. It is a gasser. In the same district, Douglass Brothers' second test, on the P. O. Adams farm, is a small gasser in the same formation.

In Center district, Gilmer County, the Hope Natural Gas Co.'s test, on the J. N. See farm, is a duster at a depth of 2,473 feet. In DeKalb district, S. G. Roberts & Co. have a gasser in the Maxon sand at a second test on the Albert S. Beal farm.

In Paw Paw district, Marion County, the Owens Bottle & Machine Co. has a gasser in the Gantz sand at a test on the C. C. Clayton farm. In Smithfield district, Roane County, the United Fuel Gas Co.'s test on the William Daugherty farm is a gasser in the Big Injun sand. In Geary district, the same company has a gasser in the same formation at a test on the J. S. Ashley farm.

In Geary district, Roane County, the United Fuel Gas Co. has completed a test on the James Hall farm. It is a gasser in the Big Injun sand. In Sheridan district, Calhoun County, Weaver & Lewis have a gasser in the same formation at a test on the Mary Kelly farm.

In Center district, Gilmer County, the Hope Natural Gas Co.'s test on the Bennett heirs' farm is dry and abandoned. In McClelland district, Doddridge County, J. H. Pence has completed in the Big Injun sand a light well on the Mary and E. Underwood farm. In Clinton district, Monongalia County, the Pittsburgh & West Virgina Gas Co. is due in the sand at a test on the Roscoe Eakin farm. In Clay district, the Hope Construction & Refining Co.'s test on the Saul Thomas farm, is a good gasser in the fifth sand. In Center district, Wetzel County, the same company has a very light pumper in the Gordon sand at a test on the Daniel Kuhen farm.

Drilling and Starting Tests

In a number of localities, there are still some tests starting. In Troy district, Gilmer County, the Ohio Fuel Oil Co. has made two locations on the S. E. Smith farm. In Church district, Wetzel County, Bell Brothers are building a rig on the J. C. Hixenbaugh farm. In Union district, Lincoln County, Roy & McComas have started to drill on the Sias farm. In Duval district, E. R. Cameron is fishing on the George P. Alderman farm. Locations have been made for Nos. 2 and 3 on the same farm. In Harper district, Roane County, the Hope Construction & Refining Co. has a rig upon the W. H. Sleeth farm.

Southeastern Ohio

Nearly all late completions in the southeastern Ohio fields are located in shallow sand territory and are light pumpers. It has been some time since the deep territory completed better than light wells.

In the southeast quarter of Section 21, York Township, Morgan County, the Ohio Fuel Supply Co. has completed and shot in the Berea grit No. 4 on the Matilda Eppley farm good for 3 bbls. a day. In the northwest quarter of the same section, the Sun Oil Co.'s No. 3, on the E.

(Continued on Page 126)

CENTRAL WEST'S BIGGEST WELL FOR WEEK IN ALLENDALE FIELD

By Whit
Staff Correspondent, Central West Fields

FINDLAY, Ohio, Aug. 13.—Very little was accomplished in any part of the Central West Field north of the Ohio River. A few completions were found in the new Saginaw, Mich., Field, making slight extensions to production, the most important being the well on the Waterworks Park subdivision in the northern part of Saginaw, reported late last week as showing around 20 bbls., and the second well on the John Schonteit farm, a short distance away from production on the same farm.

In Recovery Township, Mercer County, in the Lima Field of northwestern Ohio, A. W. Neely and others made a 35-bbl. strike in No. 5 on the Adam Fecher heirs farm, Section 24, the well being a natural producer and the best found in that immediate vicinity. The June Oil Co. struck what looks like a 10-bbl. initial producer in a test on the Ben Hellworth farm, Section 21, Hopewell Township, same county. In the Hardin County Field near Roundhead, the Cockley Oil Co. landed the best well of the week in the Lima Field, when a second test on the Floyd Stalder farm showed an initial production of 45 bbls. A wildcat drilled by the Detroit-Cleveland Oil & Gas Co. on the Bill Russell farm, Section 4, Jackson Township, Paulding County, proved a rank duster at 1,545 feet several miles in advance of production.

In Indiana, A. B. Bement's test on the Charles McAtee farm, Section 13, Clay Township, Pike County, is rated as a 25-bbl. producer from the Rumble sand and adds quite a scope of prospective producing territory to the pool proper. The Thorn Oil & Gas Co.'s test on the Gust Wonders farm, Section 28, Veale Township, Daviess County, is rated good for 25 bbls. and looks like an extension to the productive Gaither Pool, southwest of Washington.

In Illinois the best completion for the week was Mayhugh and others' No. 7 on the Kogan heirs farm, Section 2, Wabash Township, Wabash County, and in the Allendale Pool, showing for 80 bbls. initial production. The bringing in of two dusters in the Plymouth-Colmar Pool, in McDonough County, in the northwest part of the state, and a dry hole on the Foster farm, near Sparta, in Randolph County, were the real features of the Illinois development.

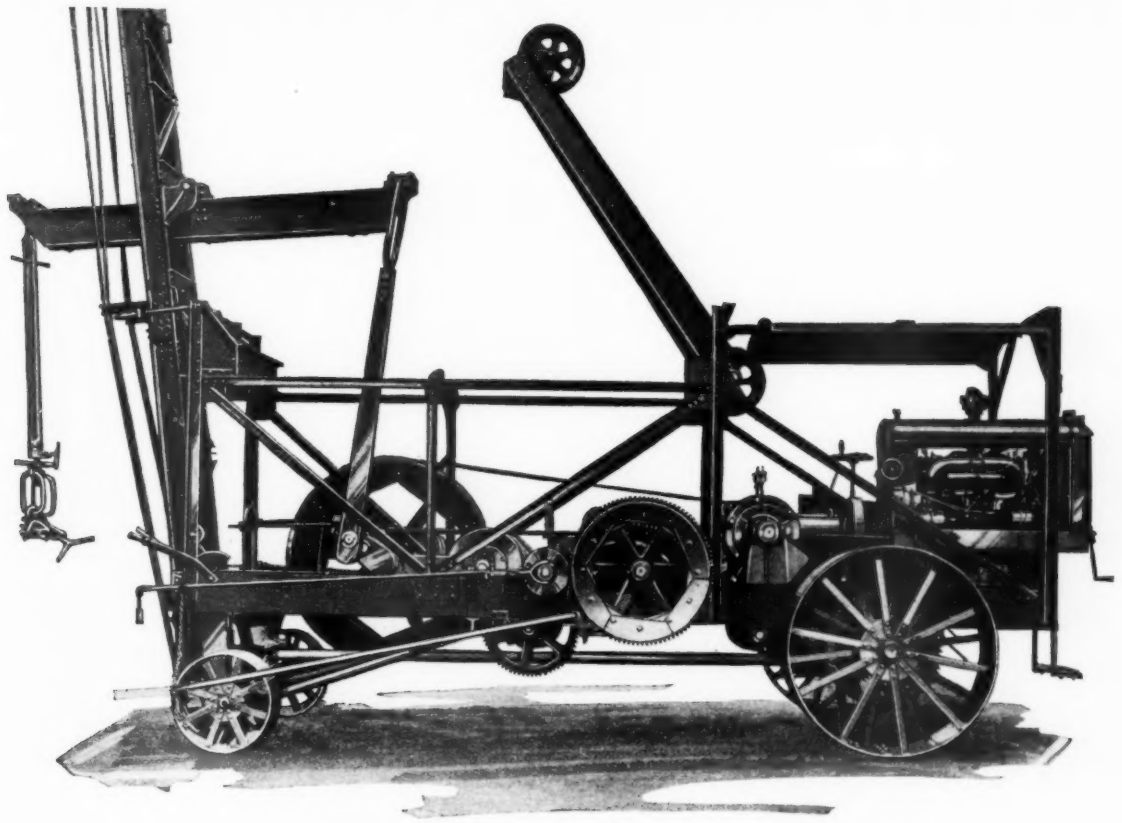
Central Ohio Field made a very poor showing for several days back, the scarcity of water holding up development work to a large extent, although the coming week may bring about the completion of quite a number of wells that are nearing the sand and located near streams where water is found in bountiful qualities for drilling purposes.

Lima Field

Few completions were reported from the Lima Field of northwestern Ohio during the week and they were average producers with the exception of A. W. Neely and others' No. 5 in the northwest corner of the Adam Fecher heirs farm, in the southeast quarter of Section 24, Recovery Township, Mercer County, which showed a production the first 24 hours of 35 bbls. natural. This well is on what is better known on the map as the H. Scott farm. Sand was struck at 1,134 feet and drilled 49 feet in the sand to a total depth of 1,183 feet. This is a much better producer than were the previous completions in the immediate vicinity and will be an encouragement for further work in that area. In the same section, Sam Tate, Jr., drilled in his No. 5 in the southwest corner of the Rose Fecher farm, in the southwest quarter of the section, which showed a first

(Continued on Page 110)

XUM



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UNITED IRON WORKS, Inc.

TULSA KANSAS CITY DALLAS

Natural Gas Developments

MONROE FIELD GAS TO BATON ROUGE PLANT

HOUSTON, Tex., Aug. 14.—Work is progressing on the 22-inch gas line from the Monroe, La., gas fields to the big refinery of the Standard Oil Co. of Louisiana at Baton Rouge. The line will be 162 miles long and it is expected the gas will be going through the line by November 1. The nature of the country makes the line an expensive proposition and involves many difficult engineering problems. Three and four 12-inch lines are being laid through long stretches of swamps. The line crosses the Mississippi River 3 miles below Natchez, Miss., and 40 miles north of Baton Rouge. Ten 10-inch lines are being laid under the river, engineers figuring that number will provide for all emergencies.

The Houston-Gulf Gas Co.'s No. 1 Shelly, a gasser in the Refugio County gas field, cut the fittings and is now flowing wild. The gas sand is at 2,080 feet. Same company's No. 1 Holmes got salt water at 2,075 feet and will be drilled deeper. The Bartlett Production Co.'s No. 1 Heard is a gasser, the gas being delivered to the Houston-Gulf Gas Co. The gas sand is at 1,600 feet. Casing is being set in No. 3-A Heard at 1,500 feet.

GAS INDUSTRY SELLING ITSELF TO CONSUMERS

By W. Alton Jones*

We have for many years held to the opinion that our service would sell itself. We have thought that because there was no other gas company operating in our city we had no competition and our business was secure. We have actually imagined that sooner or later the public would turn to us to supply their wants, and that, in the meantime, it was unnecessary to spend time and money in developing business. Our reasoning has been unsound in this matter. Business has not come to us as fast as we thought it would.

Our service has not sold itself and, what is more serious, we have had for many years a competitor which has taken more and more of the business which came to us or which we were able to attract by individual sales methods.

This competitior, the local electric company, renders valuable service. The gas light replaced the kerosene lamp and candle, and in the same course, the electric light has replaced the gas lamp. Similarly in industry, electric power has been employed with greater economy than other forms of power. In addition, the electrical industry, by a more aggressive sales policy, has taken from the gas business some of the heating demand, both domestic and industrial, which can, without question, be served more economically and satisfactorily by the gas industry.

We admit that the electrical industry has outstripped the gas business, although the gas business had a start in the race of more than a half a century. Some of us have been content with the explanation that electricity has a much larger field of service, but some of the leaders of the gas industry have recently been forced to admit that the gas business has open to it a field of service big enough to challenge our best talent, to say nothing of the new fields that may be opened through research and better utilization methods.

Through a period of years public utility companies came in for a deal of popular unfavor because of evident indifference to and neglect of public opinion and welfare brought on by the idea of public utility operators that intimate contact with the public was not necessary. Things came to such a pass that utility leaders realized a remedy was necessary.

A movement which had been started years ago but which attracted only incidental attention, has been taken up by utility men, and in the last few years has worked wonders in the restoration of public confidence and the rehabilitation of the credit of our companies. This movement is known as the public relations movement. As a part of this activity, a number of unusual methods have been employed, and it is the application of these methods which is very necessary to place the gas business in the position it should and could occupy in the industrial world today.

*Chairman executive committee, H. L. Doherty & Co.

NEW ZEPPELIN FUEL SUCCESS IN GERMANY

By Charles E. Kern
Washington Bureau,
The Oil and Gas Journal,

WASHINGTON, D. C., Aug. 14.—The experiments of German Zeppelin builders with a new gas as a substitute for benzine as fuel for engines of their cheaper Zeppelins, soon to be constructed, are being followed by aviation officials here with great interest.

The new fuel, described in consular advices as carbureted hydrogen gas, is held to be superior to other liquid motor fuels because of the increased economy and efficiency and virtual elimination of the danger of explosion.

Another advantage is that its weight is the same as that of atmosphere, and therefore no loss of weight or balance of the airship results as the gas is consumed. Heretofore it has been necessary to equip lighter-than-air craft with compensating devices, such as the water-recovery apparatus on the Shenandoah and Los Angeles, to maintain the ship's weight as the fuel was consumed. In the absence of such devices it is necessary to valve out the lifting gas of the dirigible, a costly procedure.

One form of the new gas has been found by Zeppelin officials to function satisfactorily in the Maybach motors with which the super-Zeppelin is to be equipped. Only alteration of the carburetors is needed to adjust the motors to the new fuel.

Produced after three years of experiment by a Zeppelin physicist, Doctor Lempertz, the gas, if entirely successful, is expected to change materially the construction of lighter-than-air craft, because the reduced weight of the fuel will produce a new condition of weight bearing. The gas is 700 times lighter than benzine, and one cubic meter of it develops 25 to 30 per cent more efficiency than a kilogram of benzine.

Zeppelin officials declare the new gas will reduce the strain on the framework of a ship aloft and should increase the cruising radius. The fuel is impractical for heavier-than-air craft because planes could not carry the necessary amount of gas in several large containers.

Application has been filed for a patent on the gas in this country.

The super-Zeppelin, to be known as the LZ-127, will be similar in size to the Los Angeles, but slimmer. It will carry five Maybach motors of 420 horsepower each, and will be completed late in 1927.

JOPLIN GAS CO. BUYS

The Joplin Gas Co., a Cities Service subsidiary, has been authorized by the Missouri Public Service Commission, Missouri, Kansas, to purchase the natural gas distributing systems serving Alba, Purcell, Neck City, Oakland, Royal Heights, Lakeside, Duenweg, Prosperity and Porto Rico, Missouri, from the Kansas Natural Gas Co.

TO DRILL MUIR FARM

TITUSVILLE, Pa., Aug. 14. — Emmons J. Wade, of Warren, paid $1,000 bonus for a lease on the William Muir farm across the road from the Osborn, Newson and Gifford gas well in Eldred Township. Drilling on the Muir farm will be started at once. There are about 50 acres on the farm and gas is reached at 450 feet. Locations can be made within a few feet of the present Osborn, Newson and Gifford well, which is producing gas at the rate of 2,500,000 feet a day. This well is but 800 feet from another hole which was previously drilled in, and which is making gas at a rate of 150,000 feet.

GAS COMPANIES RACE TO COMPLETE SERVICE

VERNON, Tex., Aug. 14.—Chester Upham, vice president of the Northern Texas Utilities Co., announced a connection was being completed to the Whittington well in Wheeler County, declared to have been the heaviest gas producer in the world when it was drilled in. A line was to be extended from the main line to the well immediately, to blow out the new line.

Mr. Upham added that the main line would reach Quanah within 12 days, and that 80 men northwest of Quanah were able to lay about 3 miles of pipe per day, and the 30 miles between Quanah and Vernon will presumably be laid in about 10 days, bringing the Upham gas into the city within 22 days, or before the first of September.

Unless greater speed than this is effected, the Lone Star subsidiary may be able to turn on gas in Vernon before that date, as its pipeline is much nearer and its franchise permits it to distribute gas on and after August 26.

More than 26 miles of Upham pipe is now under ground within the Vernon city limits, and workmen expect to finish within the week.

Two ditch digging machines of the Community Natural Gas Co. are working in Vernon despite the refusal of the city council to grant a permit allowing the Lone Star subsidiary to proceed with the work of installing its distribution system here before August 26, when the franchise will become effective.

Distributing systems are being installed in Oklaunion and Harrold, while the main line of the company from Wichita Falls now extends to a point near Oklaunion, it was stated.

GAS REPLACES OIL IN SMELTING PROCESS

The Federal Mining & Smelting Co.'s Whisk Broom Mine recently uncovered a body of ore which contained a high content of asphalt oil. This oil content made the deposit, which was a rich ore, very difficult to recover values from such crushed ore which ran over the mill jigs. Billy Waters, contracting agent for the Empire Natural Gas Co., convinced the mine management that it should use gas for fuel underneath the two rotary kilns in which the tar oil was baked from the ore. The company was using oil as fuel underneath the kilns and this was found to be fairly satisfactory except that it left a somewhat gummy deposit on the ore after the latter was refined.

Waters ran 1,400 feet of gas pipe to the mine mill and gave a 60-day test using gas as the fuel. After the test it was found that gas does the work much more rapidly than oil and leaves no trace of oil on the ore after it is refined. Incidentally, the tonnage run through the kilns increased materially.

AMARILLO FIGURING ON MARKET FOR GAS

AMARILLO, Tex., Aug. 14.—Besides the projects now being carried out for piping natural gas from the Panhandle to Dallas, Fort Worth and intermediate towns, plans are under consideration for pipelines to Kansas City and to Denver. From the gas field to Kansas City is approximately 525 miles; to Denver, 450 miles, and to Dallas, 360 miles. The available supply of gas in wells already drilled is greater than of any field, and the potential production is beyond calculation, according engineers who have made a study of the field.

The Lone Star Gas Co., which has a system of natural gas pipelines that run from Oklahoma and North Texas fields to Dallas and Fort Worth and many smaller towns, is constructing a 180-mile pipeline from the Panhandle Field to an intersection with its system at Wichita Falls, and is laying a 75-mile pipeline to Greenville and a 20-mile pipeline to Ferris. This company is also constructing distributing systems at Childress, Quanah, Vernon, Electra and Iowa Park. The total cost of these extensions and improvements will be $6,500,000.

Henry L. Doherty Co. has a corps of engineers making surveys with the view of determining whether it is practical to construct a gas pipeline from the Panhandle Field to Kansas City, supplying towns along the route. These interests are also considering the proposition of constructing a pipeline to Denver, passing through Pueblo, Colorado Springs and other towns.

George R. Broadwell of Oklahoma City, Okla., and associates have obtained franchises for natural gas distributing systems in Plainview, Tulia, Lockney, Lubbock, Slayton and a number of other towns in the South Plains, and will start the construction of a pipeline from the Panhandle Field September 1. This pipeline will run south to Lamesa, 190 miles.

HOUSTON COMPANIES INSTALL COMPRESSORS

HOUSTON, Tex., Aug. 14.—The Houston Pipe Line Co., the natural gas subsidiary of the Houston Oil Co., has closed a contract with the Freeport Sulphur Co. for a supply of an average of 30,000,000 feet per day. The Freeport Sulphur Co. is controlled by the Swenson Brothers, New York bankers, and has sulphur deposits at Freeport and Hoskins Sound, Brazoria County, Texas. The Houston Pipe Line Co. will loop with a 16-inch line from its main to the plants of the sulphur company. The gas will come from the Refugio, Live Oak County and Mirando gas districts, in all three of which the company has gas wells and much acreage open for future development.

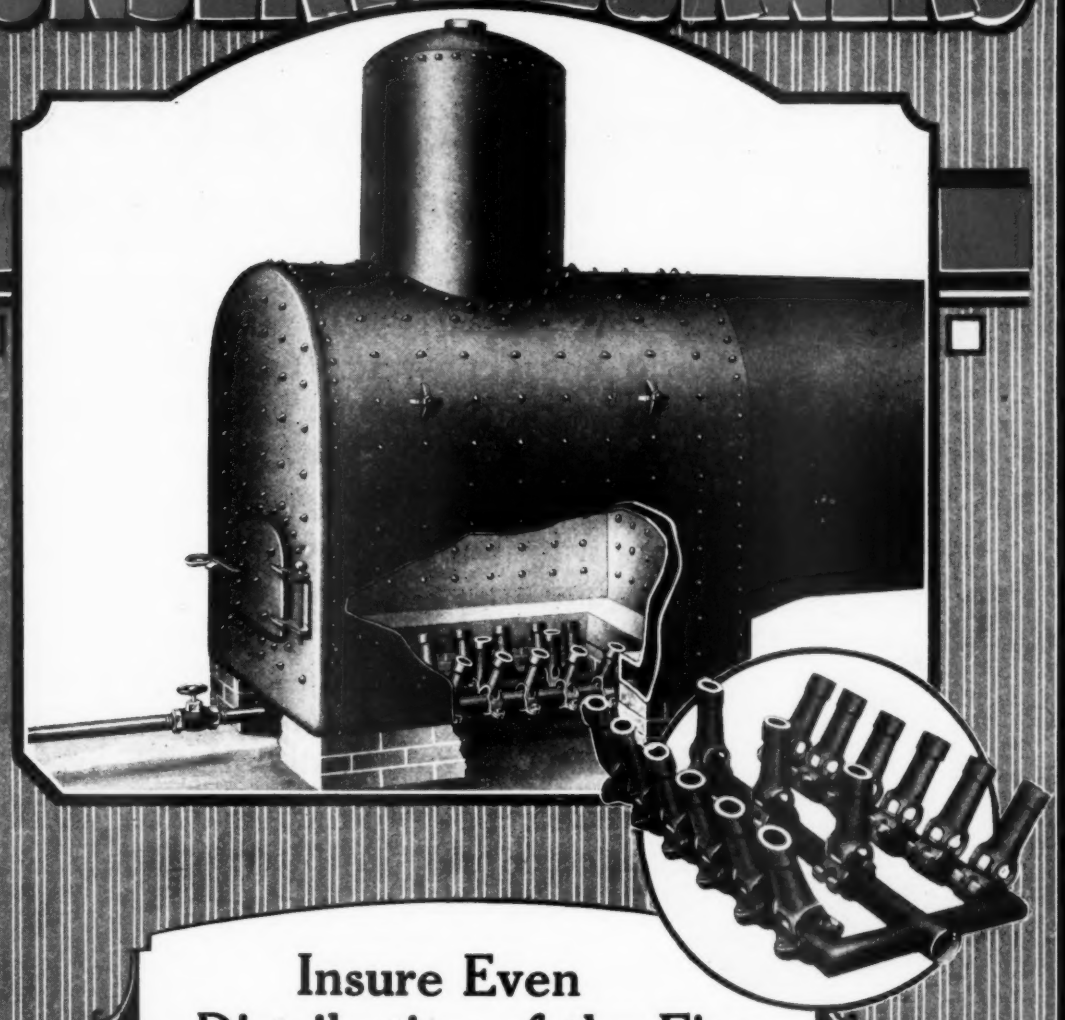
The Houston Pipe Line Co. is installing seven 500 pound-pressure compressor units in the Refugio County Field and the Houston-Gulf Gas Co. is putting in twenty 325-pound-pressure units there. The natural pressure is decreasing rapidly. The Houston-Gulf Gas Co. is putting in a 20-unit compressor station at Edna, Jackson County, where it has one well and considerable acreage.

The Houston Pipe Line Co. is delivering an average of 50,000,000 feet of gas per day to industries and oil refineries on the Houston ship channel and at Sugarland and Gulf in Matagorda County.

The Houston-Gulf Gas Co. is delivering an average of 20,000,000 feet per day to industries in Houston.

The industrial price of both companies averages 20 cents per 1,000 feet, based on heat units.

CONSERVO BURNERS



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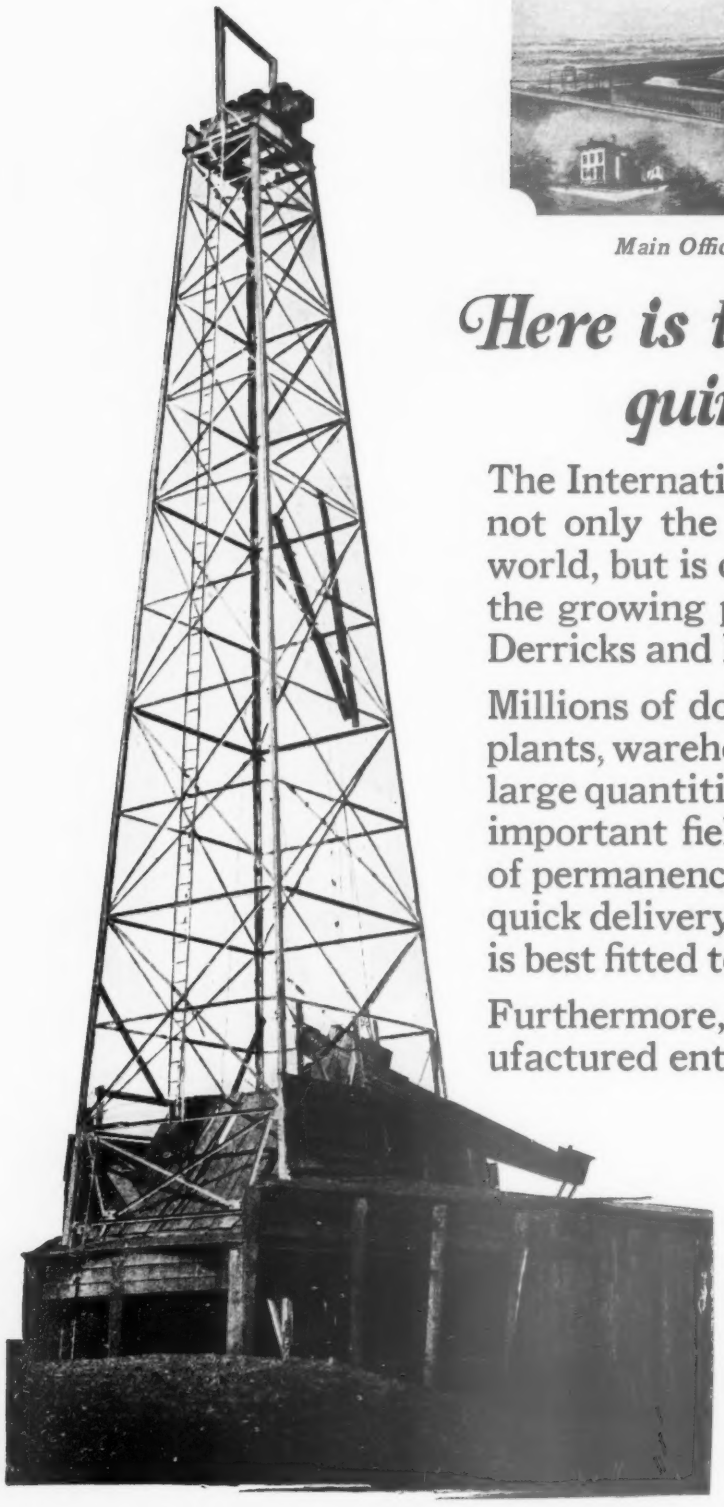

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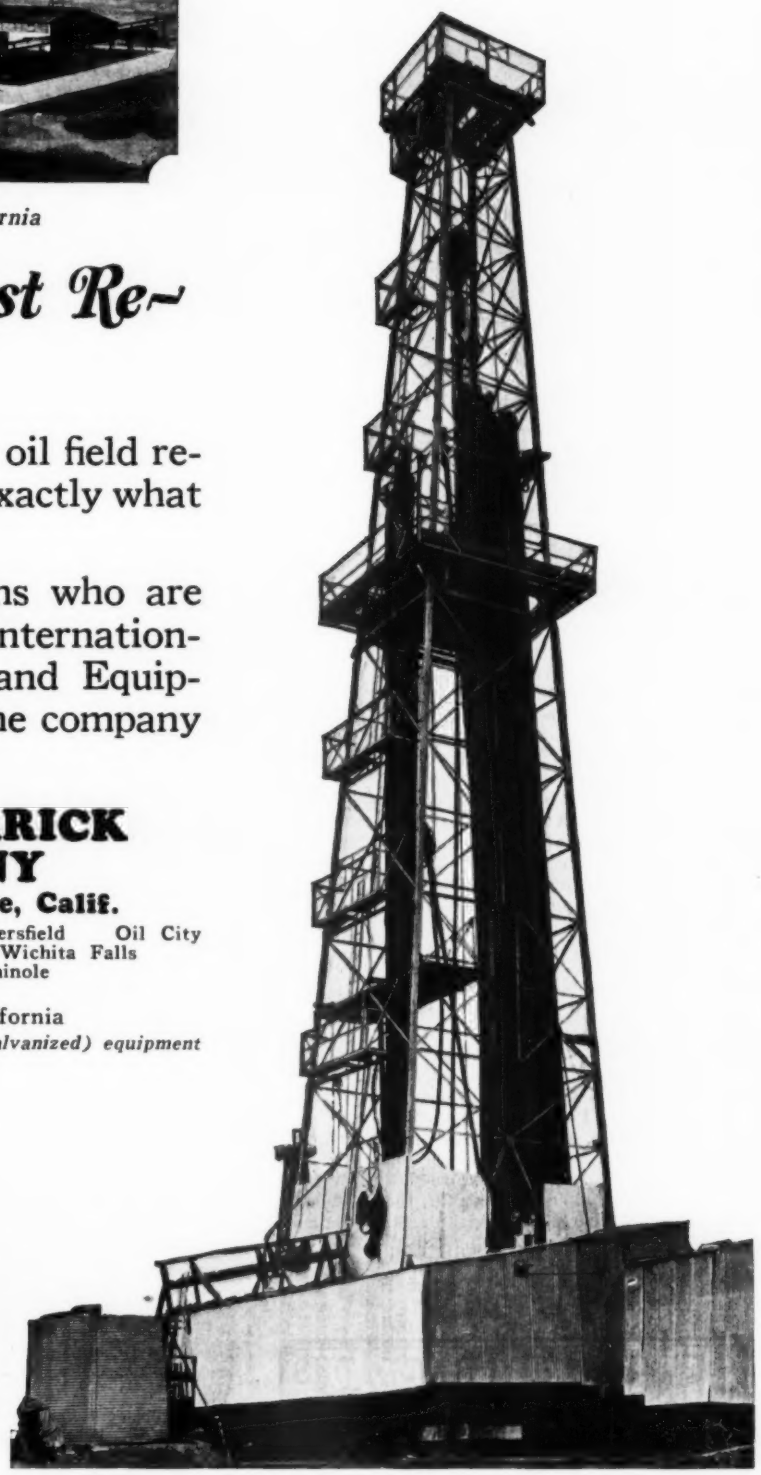


INTERNATIONAL STEEL IDECO DERRICKS (GALVANIZED)

MEN KNOWN IN OILDOM

Andrew Wells Robertson

A. W. Robertson, who on September 1, becomes president of the Philadelphia Company and affiliated corporations, of Pittsburgh, Pa., is well qualified, both by training and experience, to head the utility companies serving Pittsburgh and vicinity. A resident of Pittsburgh for 20 years, he has been in close touch with the development of the greater Pittsburgh district, and his experience as an executive of the Philadelphia Company dates back to 1913. As vice president in charge of public relations he has been in touch with operations generally, and in direct charge of the general service department, which maintains all relations with domestic customers of the company, the adjustment or claims department, the advertising department, and relations with the public service commission.

Mr. Robertson was born in Panama, N. Y., in 1880. He attended Allegheny College at Meadville, Pa., graduating in 1906, and entered the law school of the University of Pittsburgh in that year. He was graduated with the degree of LL.B. in 1910, and was admitted to the bar. After several years of general law practice he became attorney for the Pittsburgh Railways Company and Duquesne Light Company in 1913. In 1918, he was made general attorney for the Philadelphia Company and affiliated corporations, and in 1923 was elected vice president in charge of public relations, retaining also his position as general attorney.

Mr. Robertson is a member of the Pittsburgh Chamber of Commerce, Pennsylvania State Chamber of Commerce, and the following clubs: Civic Club of Allegheny County, South Hills Country Club, University Club, Duquesne Club and Phi Delta Theta Fraternity.

PERSONAL PARAGRAPHS

W. O. Gillespie has returned to Petrolia, Ont., from the Borneo fields.

* * *

L. W. Young, president of the South Penn Oil Company, visited in New York City for a few days last week.

* * *

Charles Suhr, Oil City, Pa., president of the Pennzoil Oil Company, was a Pittsburgh, Pa., visitor last week.

* * *

John E. Neelly, oil producer of Tulsa, Okla., has returned from a brief vacation spent at Eureka Springs, Ark.

* * *

T. C. Towl, superintendent of the Southwest Pennsylvania Pipe Line Company, is visiting his parents at Shelter Island, N. Y.

W. J. Hanson, California operator, is in Shreveport, La., on an extended business trip.

* * *

Charles Fearn, Pittsburgh, Pa., oil operator, was in Shreveport, La., recently on a business mission.

* * *

C. D. Watson, chief engineer of the Carter Oil Company, is on his vacation at Alexandria, Minn.

* * *

M. E. Fannon, of the Prairie Pipe Line Company, has returned to the Tulsa office after a trip through the Texas Panhandle Field.

* * *

C. F. Sweeny, chief scout of The Texas Company in the north Texas division, has returned from a business trip to Denver, Colo.

* * *

Miss Flora McDonald, who has been teaching in the oil field schools in Peru for several years, is in Petrolia, Ont., on furlough.

* * *

J. J. Kenney, general superintendent of the Eureka Pipe Line Company, made a business trip to Parkersburg, W. Va., last week.

* * *

C. W. Kramer, in charge of the Arkansas Natural Gas Company's Shreveport, La. offices, is recovering at Hot Springs, Ark., from a recent illness.

* * *

Eugene F. Conners, vice president of the Independent Oil & Gas Company of Tulsa, Okla., has returned from a business trip to Pittsburgh, Pa.

* * *

Rex L. Dawson, assistant chief scout of the Carter Oil Company, is devoting his two weeks' vacation to a much needed improvement of his golf game.

* * *

J. H. Joy, of the Magnolia Petroleum Pipeline Company, of the Dallas office, is on a tour of inspection of the company's lines in the Wichita Falls zone.

* * *

J. B. Jaqua, connected with the manufacturing department of the Union Oil Company of California, has just returned from his annual vacation, in fine spirits.

* * *

Eddie Campbell, of the Petrolia, Ont., hydro-electric staff, left recently via New York for Lagunitos, Peru, to join the staff of the International Petroleum Company.

* * *

R. W. Howe, manager of the purchasing and marketing division in Louisiana and Arkansas for the Atlantic Oil Producing Company, was a recent visitor in Spindletop.

* * *

R. E. Bishop, manager of the sales and traffic department of the Crystal Oil Refining Corporation, made a business trip to Tulsa, Okla., Kansas City and St. Louis, Mo., last week.

* * *

J. B. Whitney, Jr., formerly chemist for the Pennsylvania Petroleum Company, North Kansas City, Mo., is now chief chemist and lubricating engineer for the Winters Oil Company, Kansas City, Kans.

* * *

James Dolan, head of the land department of the California Petroleum Corporation, is in St. Louis, Mo., on a combination business and pleasure trip, but will return to the Los Angeles office next week.

* * *

Announcement has been received of the marriage of Mrs. Maxine D. Lauer and R. M. Gawthorp of Tulsa, Okla., which took place recently at Joplin, Mo. Mr. Gawthorp is chief geologist for the Prairie Oil & Gas Company.

* * *

W. E. Houghton, for many years comptroller of the Los Angeles Gas & Electric Corporation, has been elected vice president and treasurer. Mr. Houghton, in his new position, will have charge of general financing and accounting.

* * *

J. S. McMahon and L. P. McCutcheon, of the Formax Oil Company, were at Long Beach, Calif., recently where they supervised the bringing in of their No. 2 Weaver, which is being drilled under the trusteeship of Mr. McMahon.

* * *

Mr. and Mrs. Bruce Dunlop and family of Talara, Peru, arrived in Sarnia, Ont., recently on a six months' furlough. Mr. Dunlop has been superintendent for 10 years of the refining plant of the International Petroleum Company at Talara.

* * *

E. M. Delk, general superintendent of the Crown Central Petroleum Corporation's Arkansas operations, resigned that position effective September 1. He was recently elected president of the Arkansas Drilling Company, composed of El Dorado capital, and offices have been opened in El Dorado, Ark.

* * *

D. P. Crawford has arrived at Moab, Utah, from Oklahoma, accompanied by his family. Mr. Crawford is a member of the firm of Crawford & Hill, drilling contractors, who will put down the test well on Gibson Dome for the Empire Gas & Fuel Company.

* * *

Ralph McAvoy, formerly in the Tulsa offices of the Skelly Oil Company scouting department, has been given the Bristow district to scout. He is very well known, and was with the Mid-Continent Petroleum Corporation at Okmulgee, Okla., for several years.

* * *

Charles I. O'Neill, secretary of the Okmulgee District Oil & Gas Association of Okmulgee, Okla., has started on a five weeks' vacation which will be spent on the Pacific Coast, and will include a visit to the Canadian Rockies. He is accompanied by Mrs. O'Neill.

* * *

Joe T. King and W. E. Wood, president and secretary-treasurer respectively of the Kingwood Oil Company of Okmulgee, Okla., are making a general tour of the Texas oil fields, including the Panhandle and north central Texas fields. They are accompanied by C. L. McMahon, independent oil producer of Tulsa, Okla., and Leo Schumacher, an official of the Kingwood company.

* * *

L. C. Penhoel, president of the Southwestern Engineering Corporation, has left for Santa Barbara, Chihuahua, Mexico, on a visit to the Cabrita mine of which he is a director. The Southwestern Engineering Corporation, which Mr. Penhoel organized 10 years ago, manufactures both mining and oil equipment, and installations of both have been made in nearly all parts of the world.

* * *

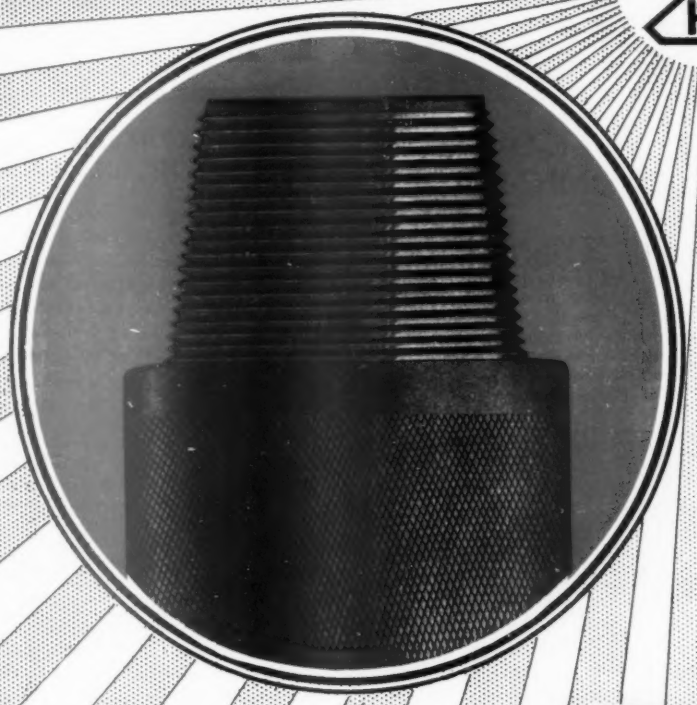
Dr. Willard R. Jillson, State geologist of Kentucky, accompanied by Mrs. Jillson, have returned from Europe. Their itinerary covered 17 countries abroad and eastern Canada, a good part of the trip being made by airplane. Doctor Jillson attended the Fourteenth International Geological Congress, under official appointment of Gov. W. J. Fields as a representative of Kentucky, the Kentucky Geological Survey, and the Kentucky Academy of Science. He delivered a paper before the Congress entitled "Oil Shales of the Eastern United States." Doctor Jillson also made investigations of petroleum, coal and fluorspar deposits of Europe.

* * *

That the Marland Oil Company of Texas now leads all other Marland subsidiaries, because of the growth of operations in the Amarillo and other Texas fields, is the statement of F. Park Geyer, president of the Texas subsidiary. Organization of the Marland Oil Company of Texas was accomplished in February, 1924. Vice presidents are W. A. Moncrief, assistant to President Geyer; I. G. Harmon, director of the production department; M. H. Goode, director of land operations; C. E. Hude, director of geology, and Alexander Deussen, in charge of the eastern district. W. J. Ricker is general counsel and a director.

* * *

The London Oil News says: Edgar H. Wilson, manager, foreign sales, Reed Roller Bit Company, has arrived in London on the first stage of a journey through the world's oil fields. He has spent the first few days meeting the managers of the various supply houses, who include a number of old friends, for Mr. Wilson was for some years in the supply business with the Lucey organization. He went to them direct from college and has a fine war record. After the reorganization of the Reed Roller Bit Company, Mr. Wilson was put in charge of the export business; and his present trip will take in first of all the European fields, including those of Russia, after which he expects to go further afield. As he has practical field knowledge, and can operate the Reed bit himself, it is possible that there will be a considerable demand upon his talents as a demonstrator.



"Superior Performance"

There Is A Logical Reason For HUGHES TOOL JOINTS Being In Greatest Demand Throughout The Rotary Fields Of The World

HUGHES TOOL COMPANY

Branch Plants
LOS ANGELES, CALIF.
OKLAHOMA CITY, OKLA.

MAIN OFFICE AND PLANT
HOUSTON, TEXAS

Export Office
NEW YORK CITY, N.Y.

EQUIPMENT AND SUPPLIES

CARBURETOR AFFECTS ENGINE LUBRICATION

By G. S. Hamilton

Climax Engineering Co., Clinton, Iowa

The adjustment of the carburetor on the gasoline engine determines the proportion in which gasoline and air shall be fed to the engine. This proportion has an important effect on lubrication. Incorrect carburetor adjustment may cause oil pumping, carbon formation or thinning of the lubricating oil by dilution with fuel.

"Oil pumping" is the accumulation of excess lubricating oil in the combustion chamber. The oil accumulates because it cannot burn—either from lack of heat to vaporize it or lack of air to consume it. With too r i c h carburetor adjustment there is not enough air to burn the gasoline completely, and obviously not enough to consume any excess of lubricating oil.

If the carburetor is adjusted to idle too slowly or if the engine is run too long in this position, the tendency toward oil pumping is greatly aggravated. In the idling position, the carburetor throttle is almost closed and a high vacuum is developed in the intake manifold and combustion chambers. This vacuum tends to draw the oil up past the pistons. The over-oiling tendency is made worse by the fact that the idling mixture is necessarily a rich mixture and the oil is likely to accumulate because there is not enough air to burn it. Idle the engine for a short time, step on the accelerator and prove this by the cloud of smoke which comes from the burning of the oil accumulation when the engine is opened up.

In starting the engine, particularly in cold weather, it is necessary to choke the carburetor. This is b e c a u s e the greater portion of the gasoline is too heavy to vaporize in the cold cylinders and consequently cannot be fired. The mixture needed to start cold engines must be from five to seven times as rich as the normal mixture. Only about one-fifth of the fuel is light enough to vaporize and fire at the low temperatures. The rest remains in liquid form and thins out the lubricating oil. It is perfectly clear that if the choke is used to excess the lubricating oil will be thinned down so much that it will lose part of its value. Avoid excessive choking or unnecessary use of the choke after the engine has started.

Keeping the engine reasonably hot helps both carburetion and lubrication. A large part of the fuel which may have previously accumulated in the oil will be driven off when the engine is thoroughly hot and the oil restored to its proper body.

FURNACE WALL MAINTENANCE

The new refractory, Plibrico Stucco, is used for the maintenance of brick or monolithic furnace walls and of arches. It is applied to the wall or arch as often as the boiler comes off the line, replacing that part of the furnace wall that has been eaten away during the last service period. It is applied in thin coats. Sometimes several coats are necessary. If a single coating of too great thickness is applied it will not adhere to the furnace wall.

PATENT GRANTED

Bruce M. Walker, of Oakland, Calif., has been granted a patent on a mechanical movement for changing the stroke of the connecting rod or pitman on a well without stopping the bandwheel to which it is connected. It is said of the new device that it may be attached to the present well equipment with very little alteration. It is operated by a lever on the headache post.

DOUBLE-ACTING, TWO-CYCLE DIESEL SAID TO SOLVE ECONOMIC PROBLEM

The double-acting two-cycle Diesel engine constructed by the Worthington Pump & Machinery Corp. is claimed to be the solution to certain economic and engineering problems confronting the American Merchant Marine and the management of industrial plants.

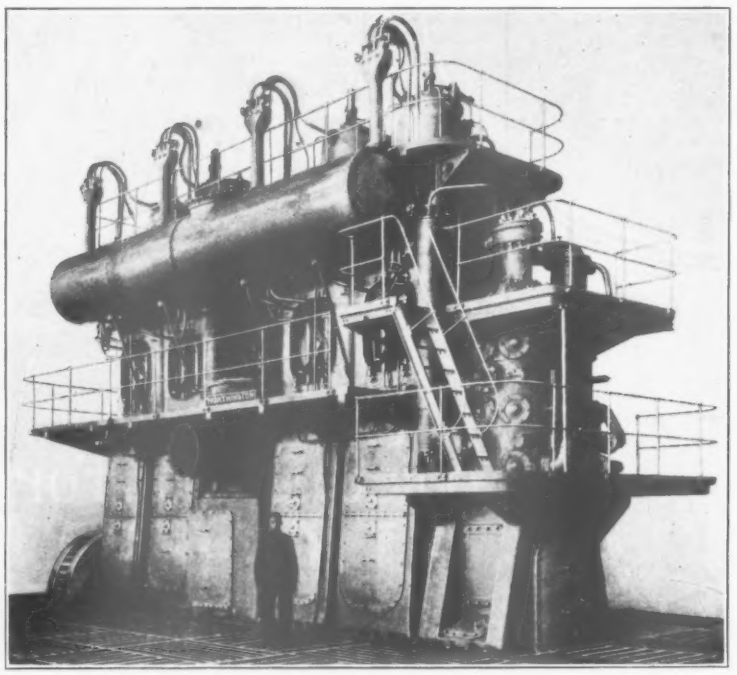
If the merchant marine is to function properly as the advance agent for American factories, it must motorize. The day of the steamer, save for fast express and passenger vessels of large tonnage, is over. Foreign lines recognize this, as evidenced by the fact that of all the keels laid in 1924 and 1925 over 50 per cent were for motorships. American steamships are operating under the handicap of high wages, large crews and high first cost. They cannot compete with foreign steamers, much less motorships.

One of the principal reasons for the success of the motorship is that for a given deadweight tonnage the elimination of the coal bunkers and boilers provides a greater cargo space, and it is a cargo capacity that spells profit or loss for any vessel. Of equal importance is the reduction in engine room labor. In place of several firemen and coal passers, the motorship can be operated by fewer men.

All of these factors demand that the motorship become the cargo-carrying vessel of the American Merchant Marine. That the Dieseled ship has not already predominated in American shipping is due pre-eminently to excessive weight and space requirements as well as price of the oil engine built prior to the conception of the two-cycle double-acting unit.

The Worthington Pump & Machinery Corp. of New York has constructed a new double-acting, two-cycle Diesel engine, the first of which has completed successfully a 30-day endurance test followed by several days of maneuvering tests at the company's works in Buffalo. This engine is the first large marine double-acting

(Continued on Page 72)



Worthington double-acting two-cycle Diesel engine.

TRADE LITERATURE RECEIVED

A leaflet describes the Sherman-Little oil, gas and water separator. This device has been patented by J. L. Sherman of Norphlet, Ark., and is designed for use of oil wells with a high gas pressure. The inventor claims that it separates the oil and water, does not cut the oil or sand the trap up, and forces the gas out through the machine in a dry condition.

—

The "Pure Iron Era," house magazine of the American Rolling Mill Co., of Middletown, Ohio, has been received. Among other interesting articles it contains an article entitled "Elimination of Waste," by Herbert Hoover.

—

The Carnegie Steel Co., of Pittsburgh, Pa., has distributed two valuable books, "Structural Steel Shapes, Tables and Information," and "Light Weight Wrought Steel Wheels." The former contains tables and other data for structural sections considered most suitable for bridge and building construction. The safe loads for structural sections used as beams are given in completely tabulated form. The second book is devoted to wrought steel wheels for freight car service.

D. B. CATTON IN CHARGE

D. B. Catton has been placed in charge of the Chain Belt Co.'s Portland office to succeed A. C. Sullivan, who died recently. Mr. Catton will look after both the chain and conveyor business of the company, though the concrete mixers made by the same company will continue to be handled by the Loggers & Contractors Machinery Co. Mr. Catton has been associated with the Chain Belt Co. since the opening of the Northwest offices two and a half years ago, but has handled Rex Chain (one of the company's principal products) for more than 10 years.

SALES REPRESENTATIVE TO THE OIL INDUSTRY

H. T. Moguin, representing the Master Builders Co. of Cleveland, is in the Mid-Continent preparing to open an office, probably in Tulsa, to have charge of the business of the company with the oil industry. This company is one of the oldest and largest of its kind, but is only now entering the oil business, following its policy of waiting until satisfied with the value of its product to the market. Mr. Moguin, who is an engineer thoroughly experienced in the oil industry, will introduce as the company's first oil industry specialty, developed in its own research laboratory, Master-Kem, which accelerates, strengthens and waterproofs cement, making a permanent job.

NEW MEMBER OF FIRM

Announcement is made of the reorganization of Foster-Hamilton, Inc., advertising agency of Tulsa, Okla. The new name will be Foster-Hamilton-Ryan, Inc., with Paul Ryan the new member of the firm.

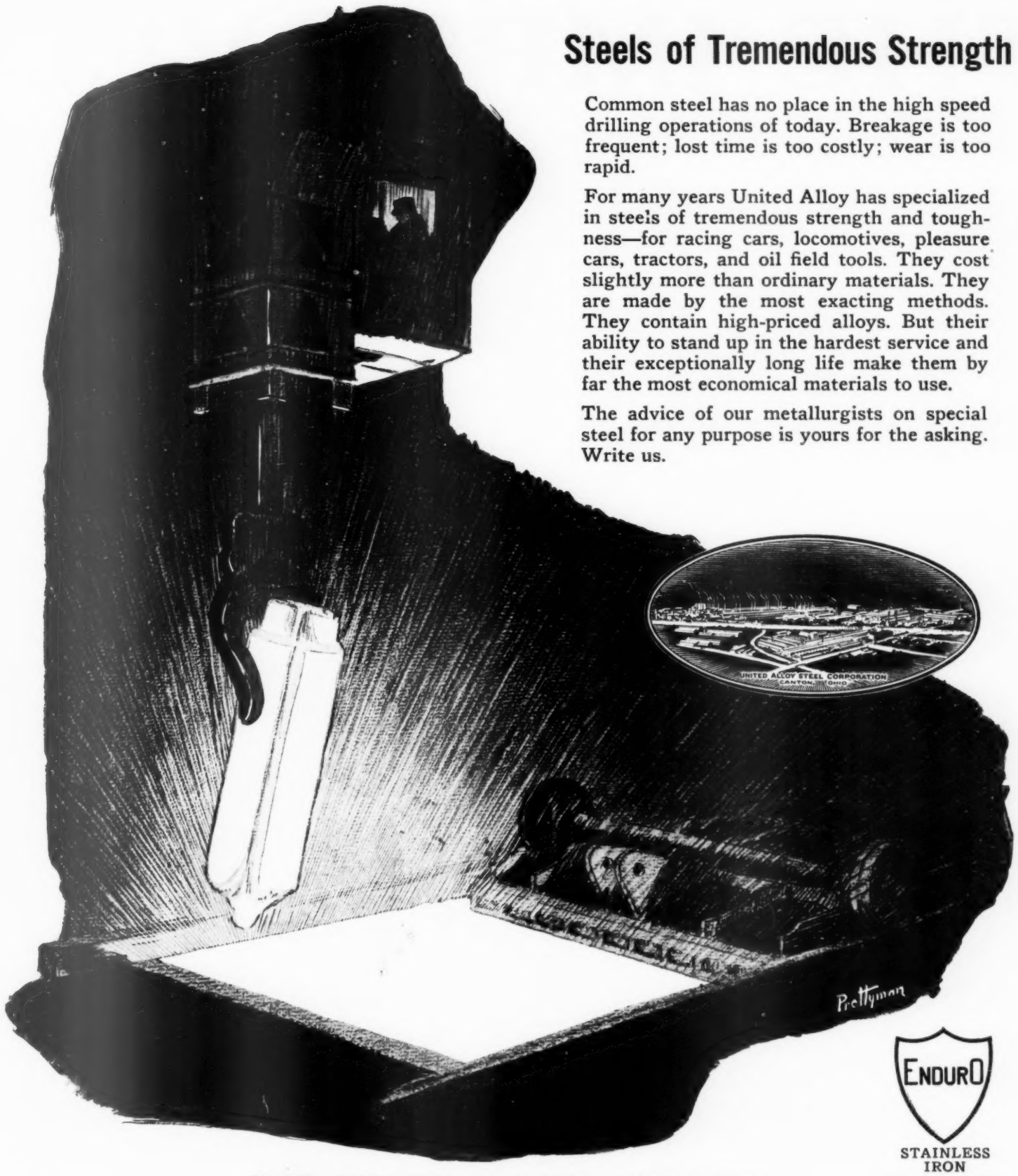
Mr. Ryan was born and reared in Philadelphia; is a graduate of the University of Pennsylvania, and Massachusetts Institute of Technology. He attended the graduate school of Harvard University of Business Administration. Mr. Ryan has had considerable oil field experience

Paul Ryan

DATA ON ALUMINUM PAINTS

The busy executive will find a "world of data" in the most recent publication of Hill, Hubbell & Co., specialists in technical paints, San Francisco and branches. This little handbook, under the name "Bitulumin," with the subtitle "77 Questions and Answers" on aluminum paints and metal primers, is commendable for its comprehensiveness, and its brevity.

The treatment of the information is designed for both the practical business man and scientific expert. The booklet is sent to those interested enough to write for it. This firm maintains branch offices at Los Angeles, Portland, Seattle, Tulsa, Baltimore and New York City.



Steels of Tremendous Strength

Common steel has no place in the high speed drilling operations of today. Breakage is too frequent; lost time is too costly; wear is too rapid.

For many years United Alloy has specialized in steels of tremendous strength and toughness—for racing cars, locomotives, pleasure cars, tractors, and oil field tools. They cost slightly more than ordinary materials. They are made by the most exacting methods. They contain high-priced alloys. But their ability to stand up in the hardest service and their exceptionally long life make them by far the most economical materials to use.

The advice of our metallurgists on special steel for any purpose is yours for the asking. Write us.

ENDURO
STAINLESS IRON
Seamless Drawn Tubing
Sheets Bars

UNITED ALLOY STEEL CORPORATION, CANTON, OHIO

Special analysis and alloy steels furnished to your specifications or ours for any required purpose. Daily production of all standard alloy steels.

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U-LOY Steels are made for bits, jars, and tool-joints in open hearth or electric furnace steels. Alloy steel bars for cutters, slips and fishing tools are furnished promptly.

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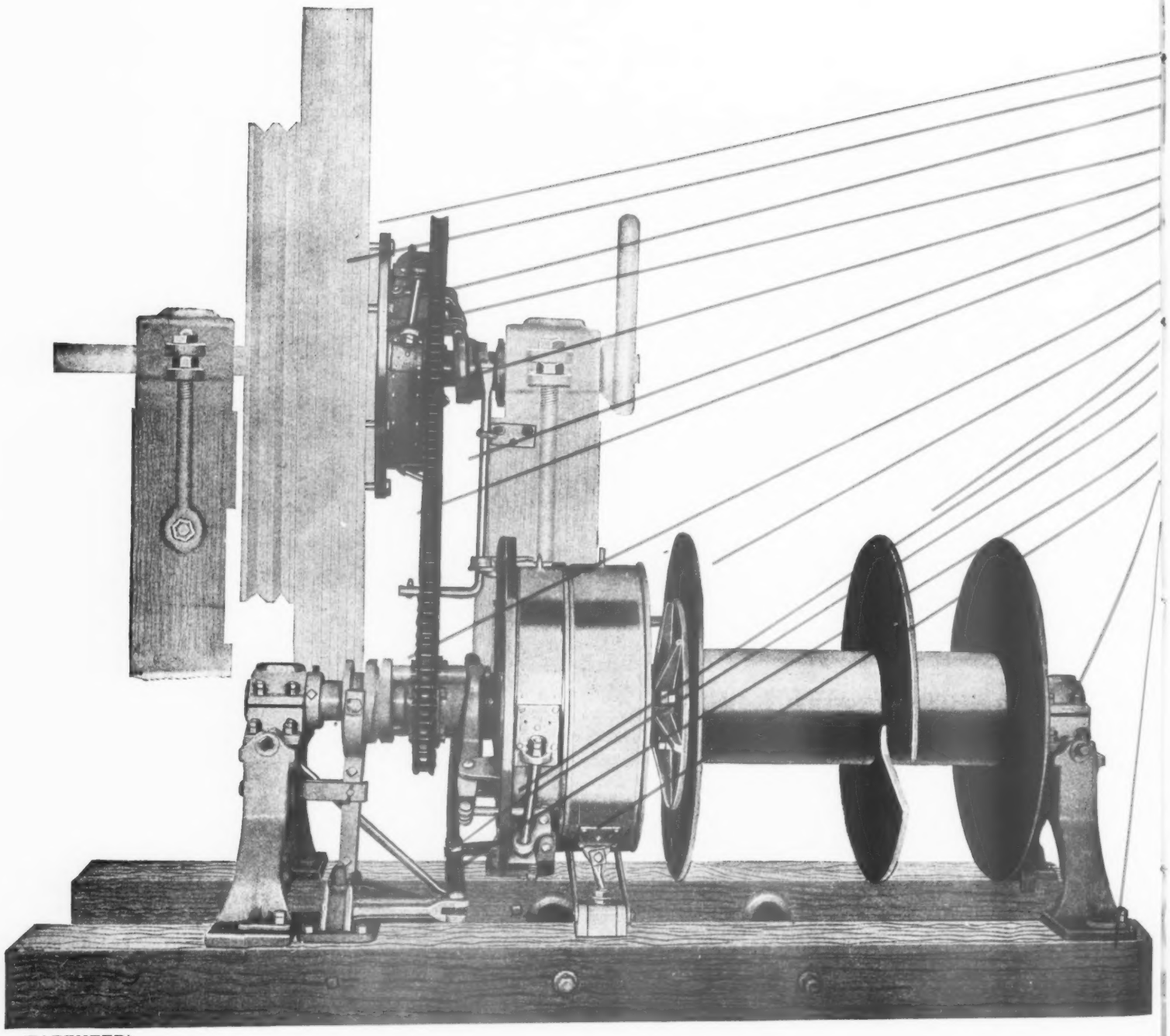

(PATENTED)

MODEL 27

S. & B. Chain Driven Sand Reel

MODEL 27

Fits Any Rig Without Alteration

ONE HUNDRED LESS PARTS

Two Piece Driving Flange fits over Regular Rig Iron Flange.

Two Piece Bandwheel Friction Clutch requires 10½" of Shaft space, entirely removable.

Single Adjusting Bolt to compensate for wear.

Flange Keys may be driven without removing parts.

All breakable Brackets and Levers of Steel.

Diamond Roller Chain for silence, speed and strength.

Machine Cut Steel Sprocket.

Capacity 7,000 feet of 9/16" Line.

Capacity 3,500 feet of 9/16" Line.

Single Adjusting Bolt for Clutch.

Single Control Lever for operating Clutch and Brake.

Connection for Safety Line.

Single Adjusting Bolt for Brake.

Heavy Adjustable Bearings.

Oak Sills, Resilient, Universally Applicable, Portable—Steel Optional.

At Supply Stores Everywhere

POPULARITY

The popularity of the improved S. & B. Chain Driven Sand Reel has spread throughout the oil industry almost over night.

Its simplified design . . . its greater efficiency . . . sturdy construction . . . adaptability to any rig without alteration . . have won instant favor with the oil fraternity.

It has all the advantages of other types with many features not found on any other sand reel.

Write for illustrated bulletin.

Manufactured by

THE OIL COUNTRY SPECIALTIES MFG. CO.

COFFEYVILLE, KANSAS

GEOLOGY OF DOMINGUEZ, CALIFORNIA, OIL FIELD

(Continued from Page 32)

their topography. Both have been entirely submerged at least once in Recent time, and as a result are flanked by almost horizontal terrace gravels. The erosion of most of these later sediments has revealed the anticlines with approximately their late Pleistocene topography.

Past Development

The existence of favorable structure at the Dominguez Field was inferred many years ago from the outline of Dominguez Hill, or long before the forces governing this structure were worked out.

The Standard Oil Co. of California drilled two wells upon the southern slope of the hill, one over 5,000 feet in depth. These wells were located respectively about 450 and 650 feet south of present production. The General Petroleum Corp. and the Highland Oil Co. later drilled wells which would have been productive had they been drilled deep enough, but mechanical troubles intervened and the discovery of the field was postponed.

The Dominguez Field was discovered in September, 1923, when the Union Oil Co. of California drilling upon land held jointly with the Burnham Exploration Co. (now Dominguez Oil Co.) brought in its No. 1 Callender at a depth of 4,068 feet for a substantial production of light oil. This well was located three-quarters of a mile northwest of the highest portion of the anticline and slightly north of the anticlinal axis.

Oil Horizons

With the possible exception of a few northwesterly wells, oils produced at the Dominguez Field have so far come entirely from the Callender zone, so named from the discovery well. The Callender zone is equivalent to the upper portion of the third or Brown zone of the adjacent Long Beach Field. Strata equivalent to the Wilbur and Alamitos (first and second) zones at Long Beach and there totaling 850 feet in thickness, are barren at Dominguez. (See Figure 3).

The large operating companies which entirely control the Dominguez Field have by mutual agreement limited the penetration of all wells to 400 feet below their final water shutoff. This agreement, which was made at a time when overproduction and wasteful competitive drilling were feared, has resulted in the deeper possibilities of the field being largely unknown at the present time.

The Callender zone is highly productive upon the higher parts of the structure in the 400 feet explored, the initial yields of wells properly completed in this horizon ranging from 500 to 5,000 bbls. daily. A penetration stratigraphically deeper than the 400 feet explored high on structure has been made in edge wells, an absence of production in the upper part of the Callender zone at these localities allowing of a deeper shutoff. Production in edge wells practically proves the higher structure to a depth of 700 feet below the top of the Callender zone, or 300 feet deeper than this higher structure has been tested. Whether the entire 700 feet will be productive is not known. There is at present a tendency among some geologists to divide this series into "upper" and "lower" Callender sands.

The gravity of the oils range from 22 to 32 degrees Baume, with most of these being of the higher grades.

The producing horizons are not solid sands, but like the horizons of most Los Angeles Basin fields are composed of an aggregation of sand layers separated by numerous thin partings of shale and sandy shale.

The proven area at this time covers 875 acres.

Production Statistics

Production of oil at the Dominguez Field reached its maximum in January, 1925, during the month it averaged 56,892 bbls. daily. It then entered a steady decline to 20,791 bbls. daily for the month of March, 1926. Since this latter date production has held steadily around 21,000 bbls. The total production of the field to and including June 30, 1926, has been approximately 24,225,000 bbls.

Future Possibilities

That the Dominguez Field has distinct future possibilities may be inferred by noting that nearly all of its production to date has come from about 400 feet of strata; and that 2,750 feet of deeper sediments which are in large part productive at Long Beach, and 3,100 feet which are partially productive at Rosecrans, are unexplored on the higher structure at Dominguez.

The situation at Dominguez is not, however, as favorable as this might lead one to believe. A number of rather complex geologic factors make any direct comparison erroneous.

The drainage area of the Dominguez Field is distinctly inferior to that of the field at Long Beach. The distance northeastward to the axis of the supposed "central syncline" of Los Angeles Basin is indicated to be somewhat shorter at Dominguez and on the southwest the San Pedro Hills uplift and flanking Torrance anticline have appreciably restricted the drainage on that side. Moreover, the interval between anticlines southeast of the Dominguez Field averages 6 miles, while at Dominguez and northwestward a branching of the Newport-Beverly Hills fault zone and a narrowing of the basin has caused this interval to be reduced to 4 miles. There is some evidence to support the view that these distances should, with modifications, be squared.

Additional modifiers are present, including the higher and more intense folding at Long Beach, the unknown efficiency of nearby faulting in distributing petroleum, and the saturation and related pressures of the untested horizons.

The eight (known) oil fields located along and caused by the Newport-Beverly Hills fault zone, fall into three divisions with reference to their magnitude. Long Beach and Huntington Beach are fields of the first importance; Dominguez, Inglewood, Rosecrans and probably Seal Beach belong to the second; and Beverly Hills and Newport form the third.

The working out of the various factors influencing the relations between these fields is rather complicated, and involves the use of variables, but the conclusions when examined often check closely with known productions. In the present instance some rather interesting analogies could be made between the Dominguez and Long Beach oil fields by weighing these factors. Detailed estimates are not, however, a part of general information and are best restricted to the developing companies.

The Dominguez Field may be said to have distinct deeper possibilities and indicated large reserves. These must be considered in any estimate of future California or world production aspiring to accuracy.

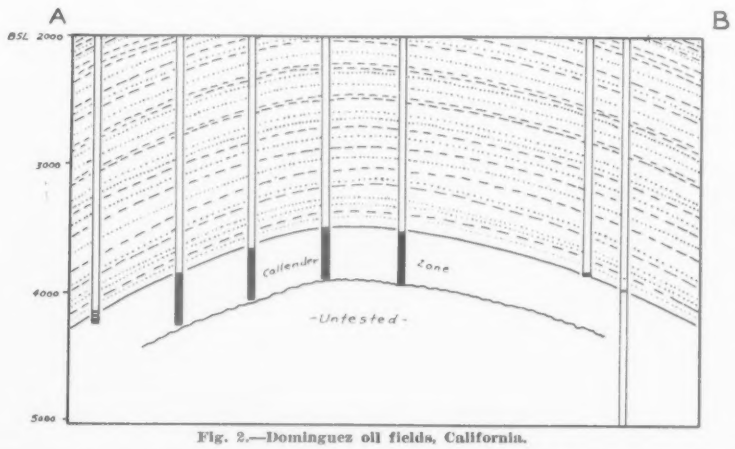

Fig. 2.—Dominguez oil fields, California.

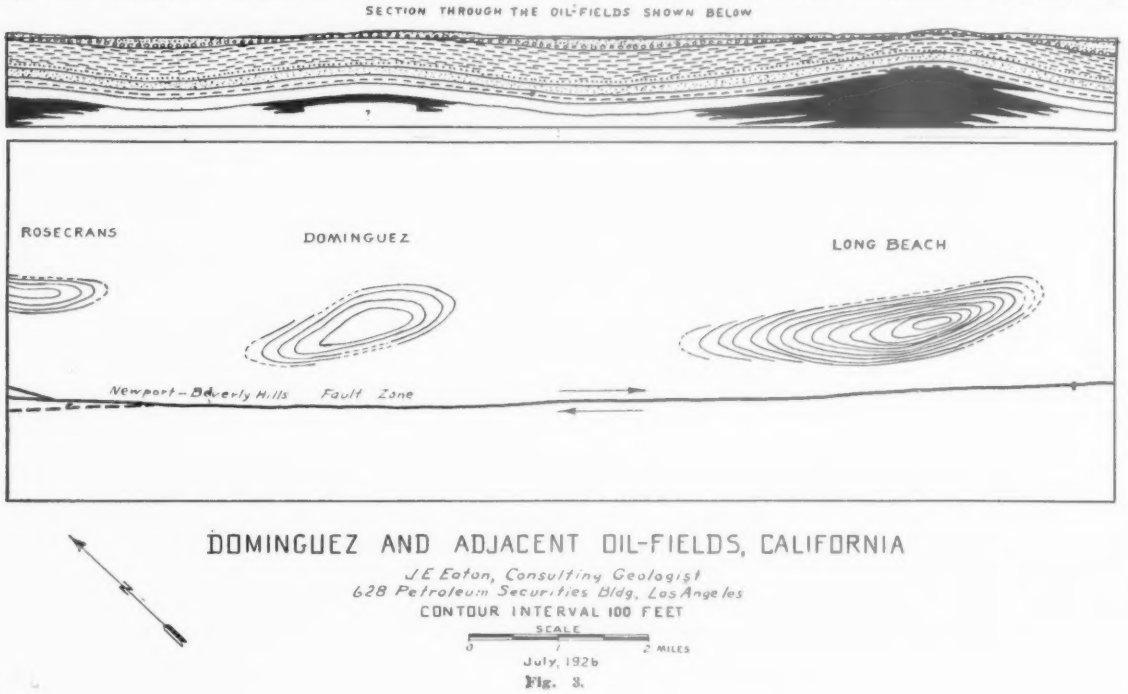

Fig. 3.

DOUBLE-ACTING, TWO-CYCLE DIESEL ENGINES

(Continued from Page 68)

Diesel engine completed for the United States Shipping Board conversion program. The engine met its specifications and in many respects showed remarkable performance.

The endurance run continued without stop for 30 days and the engine was operated at loads around 2,900 brake horsepower at 95 revolutions per minute. At the end of this period, without stopping, the load was increased 10 per cent for a period of six hours, then for a further period of four hours speed was increased another 5 per cent cent, making an overload of speed and work. Those present stated that this overload at the end of the long hard run was a most unusual test for any piece of machinery.

The engine was remarkable for its smooth quiet running. The double acting two-cycle principle is said to be most largely responsible for the satisfactory operation of the engine.

Immediately following the endurance run the most interesting and spectacular experiments were carried out, the engine being maneuvered by different members.

One of the maneuvers which, in the past, has been a somewhat difficult problem for Diesel engines, was reversing. Again the double-acting two-cycle principle makes for a big simplification in reversing. In fact, this Worthington Diesel engine is claimed to reverse more easily than a steam engine. Complete reversal from full load in one direction to full load in the opposite direction was made in six seconds, then 28 consecutive reversals were made at an average time of eight and one-half seconds each. Forty reversals were made in one hour.

Just incidental to the test was a noteworthy performance upon starting up after shut down. The engine had been shut down for 17 hours, and was started up instantly without even priming the fuel valves.

Diesel engines are started and reversed with compressed air, so that one of the tests that must be met is the number of reversals that can be made with the compressed air in the maneuvering tank. Forty-seven reversals were made without drawing air from outside the standard equipment. More could have been made, but the requirements were so far exceeded that it was not necessary to go farther.

Among the records kept during the endurance run was, of course, the regular measurement of fuel. The results showed that the fuel consumption was about 14 tons per 24 hours. The fuel used was asphalt base bunker oil of high viscosity, which had to be heated before it would flow into the fuel piping system. The fuel consumption of the oil burning steamer would be approximately 35 tons against 14 which is a saving of about 21 tons of oil per day.

Among the engineers present at the completion of the test were W. W. Smith, Federal Ship Building Co.; J. O. Arkabauer, of Phelps Brothers Co., representatives of the Consulich line; E. Delbose and J. F. Fox, of the Brooklyn Navy Yard; A. R. Gatewood, of the Standard Oil Co. of New Jersey, and A. Neveling, of the Great Lakes Dock & Dredge Co.

Through Bad Lands

You have them, in spots at least, on every pipe line;—places where corrosion is especially active due to soil composition and presence of water and moisture in excessive amounts. Covering pipes with protective coatings is an aid to long life; but only if the base metal is in itself a highly rust-resisting material can the best results be obtained. Such metal is also a safeguard against corrosion on the interior pipe surface, where the application of protective coatings in the field is impracticable.

Byers Pipe is made of the highest grade of genuine wrought iron, which has proven so highly resistant to corrosion as to gain world-wide recognition for its great durability, especially as compared with so-called wrought (steel) pipe.

Ask for Catalog and further particulars

A. M. BYERS CO.

Established 1864
Pittsburgh, Pa.

HOUSTON TULSA LOS ANGELES

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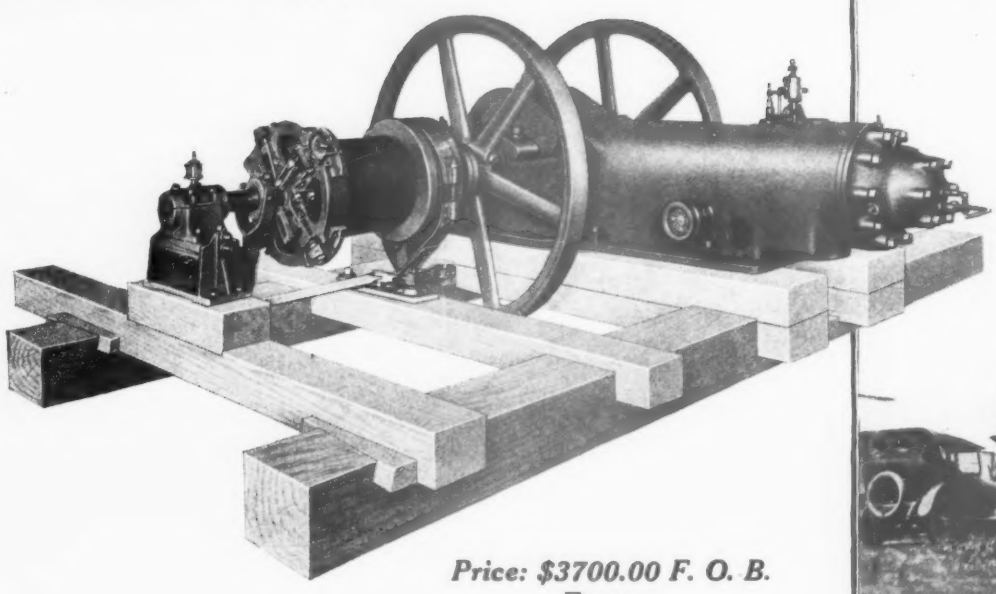
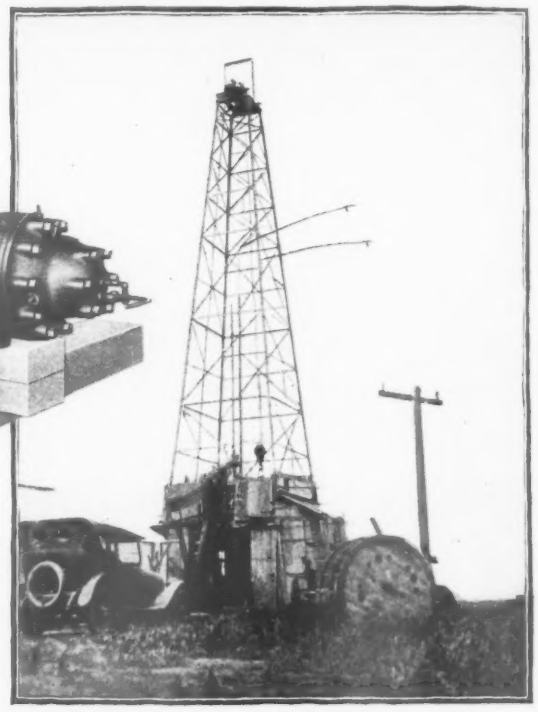
BYERS PIPE

GENUINE WROUGHT IRON

XUM

OIL DRILLING ENGINE





Price: $3700.00 F. O. B. Factory

What Brings the Steam Users Around to Franklin Valveless?

If you can show a driller or contractor that your power plant will drill more hole at a lower cost and with less trouble, he's "sold." And that's exactly what Franklin Valveless Oil and Gas Engines are doing in the Mid-Continent and Eastern fields, where steam, until recently, was the prime favorite.

But considering the steam engine's dependence upon a good and cheap water supply, the difficulties of transporting so much dead weight and its enormous fuel consumption, it is easy to see why the advantages of Franklin Valveless Engines interested the contractor and operator.

Extreme Simplicity of Construction

The Franklin Valveless Oil Engine is a single cylinder, three-part, two-cycle engine, with the fewest possible number of moving parts. All bearings and gears run in a bath of oil, and while fully protected from sand and grit, are easily accessible. The Franklin lubricating system is the most efficient known. An inexperienced crew can set up and operate a Franklin Valveless without trouble or delay.

Adaptable to Any Fuel Conditions

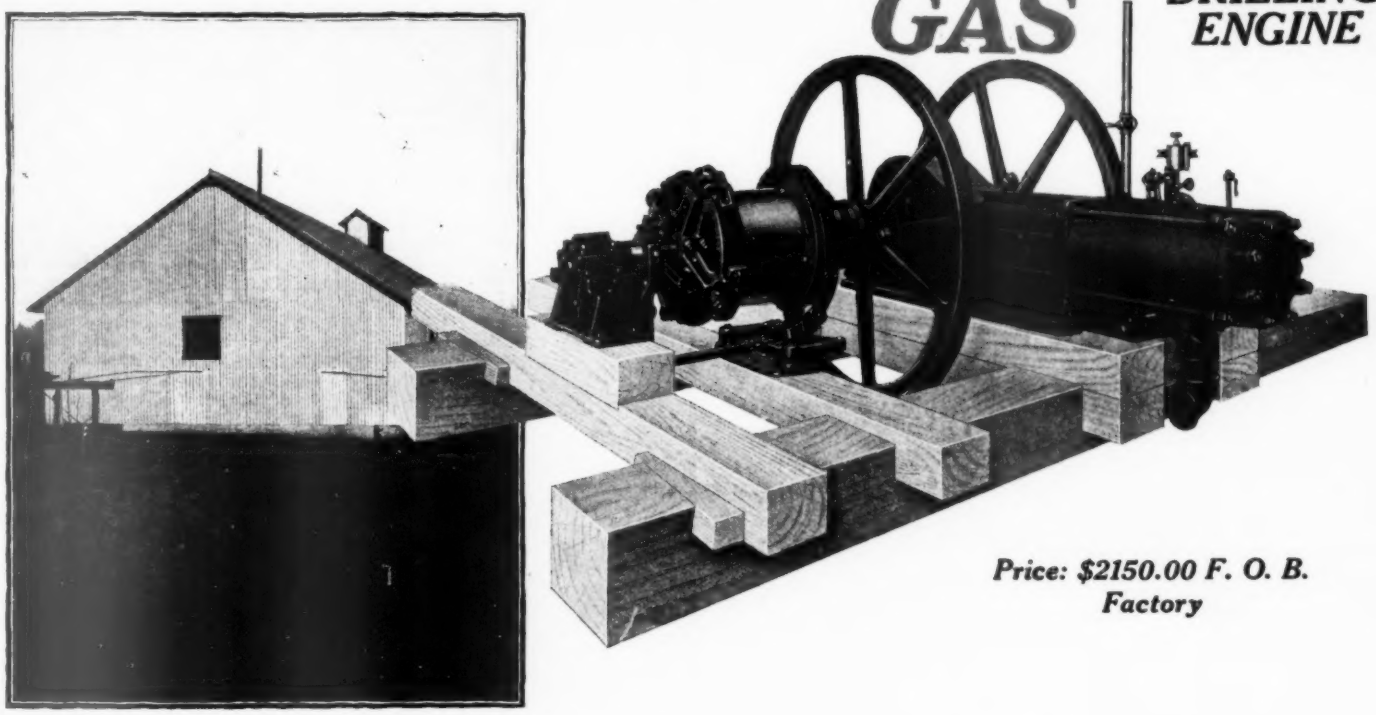
If the owner of a Franklin Valveless Oil Engine goes into a field where gas is cheap, he can convert his oil engine into a gas engine in two hours—simply by changing cylinder heads and replacing fuel pump with magneto.

Lowest Operation and Maintenance Costs

The fuel bill for a Franklin Valveless is actually less than that for a Ford automobile! Average fuel consumption for drilling is approximately 1½ gals. of 8c fuel oil per hour. Lubricating costs and repair bills are cut to a minimum—many Franklin Valveless engines have drilled from 10 to 30 wells without costing their owners one cent for repairs. As for water—100 barrels will cool the engine and mix mud for approximately 1000 feet of hole. No wonder Franklin Valveless users say they are saving from $20.00 per day and up using this dependable, economical drilling engine!

FRANKLIN VALVE

THEY BEAT STEAM



Price: $2150.00 F. O. B. Factory

Change From Driller to Pumper on the Same Block

While the Franklin Valveless Gas Engine is like the oil engine in principle, it has one more big advantage—that of interchangeability. When drilling is completed you can leave this engine on the block for pumping or replace it with one of less horse power without changing a single bolt on the original foundation. This feature warrants the building of the most satisfactory engine foundation—concrete.

Service

Even though Franklin Valveless Engines can be set up and operated successfully by an inexperienced crew, our distributors will furnish, upon request, a factory mechanical expert to demonstrate and assist in the economic use of these power plants.

Prices

Complete with self-oiling reversible drilling clutch, circulating pump and fuel tank.

FOR MID-CONTINENT AND WESTERN DRILLING SERVICE

Oil—$3,350 and $3,700 Gas—$1,725 and $2,150

FOR EASTERN DRILLING SERVICE

Oil—$2,600 and $3,350 Gas—$1,450 and $1,725

Pumping Engine Prices on Request

All prices F. O. B. Factory

FRANKLIN VALVELESS ENGINE CO.

Franklin, Penna.

Distributed by

Atlas Supply Company
Muskogee, Okla., and Branches

New Martinsville Supply Co.,
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LESS ENGINES

AT EVERY TURN

XUM

No "ifs, ands, or buts"—

The HOUGH DUO PUMP is built without compromise; design is scientific, materials of the best and workmanship thorough and exacting. As a result this two-purpose PUMP is simple, sturdy and efficient—just put it to work where excessive sand is present and if its performance does not win your respect and admiration we will admit the pump hasn't quality.

Hydraulic packed section of the Plunger Valve may be converted into a four-cup valve by simply reversing the follower and bottom and with three cup rings and four valve cups—thus making an 8-cup Plunger Valve. Fitted with Steelex Balls and Seats. Lengths: 5 to 10 feet inclusive; 2", 2½" and 3" tubing. Sold by all good dealers—why not test one out?

Cutaway section of the Hough Duo Pump showing details of construction. Note strength, simplicity, design.

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CENTRAL PETROLEUM COMMITTEE PLANS PROPOSED A. P. I. PROGRAM

The American Petroleum Institute is distributing the report made to it by the Central Petroleum Committee of the National Research Council, covering projects recommended for research under the terms of the recent gifts to that body. Other proposals are freely invited, and the A. P. I. desires the full co-operation of the industry and all interested persons in the formulation of programs for action. The various projects are listed as follows:

Generation of Oil in Rocks by Shearing Pressures: That oil is produced by geological forces acting generally through long intervals of time on the debris of aquatic organisms buried in the sediments is believed by most geologists.

Pressure experiments carried out by McCoy and Trager (Journal of Geology, Vol. 28, 920), under rather unfavorable conditions, appear to furnish evidence favoring the generation of oil under shearing pressure. The experiments by Steuart, by which finely disseminated oil, mixed with argillaceous matter, was occluded and carried down with other sediments, seem undeniable. The experiments in view are principally shearing-pressure tests, with varying factors of time, pressure, temperature, catalysis, solutions, etc. They should be more carefully and adequately organized and more exact, and should more nearly duplicate geological conditions than those previously carried out.

Experiments in the Artificial Carbonization of Carbonaceous Rocks by Geophysical Methods: Intimately involved in the generation of oil in mother rocks under geodynamic influences, primarily intermittent shearing stresses and geologic pressures and temperatures, is the progressive carbonization of the organic rocks. Accordingly, the plans covering the shearing-pressure experiments provide also that the oil shales and other supposed mother rocks used in the experiments will be examined chemically after the various tests to determine whether they are further carbonized in the processes, with loss of volatile matter. To make the studies of dynamic carbonization more comprehensive, it is planned to carry out experiments on a wider range of carbonaceous sediments.

Source Rocks

Studies of Source Rocks in the Microfurnace: This study has for its immediate object the observation and determination, by means of a micro-furnace, of the temperatures at which the optically distinguishable fossil components and their derivatives in the varied organic conglomerates that make up the different types of bituminous shales. To date microthermal observations cover a number of oil shales of different ages and types, and of somewhat different states of carbonization. The microthermal observations should be followed by distillations of the same rocks under the same conditions in a special retort, so that test cuts may be taken off at the temperatures corresponding to the observed changes in the components noted under the microscope. The method of study will be of great value in the solution of a wide range of problems, including questions relating to coal as well as other deposits of organic composition.

Origin and Environment of Source Sediments: This project covers the study of oil shale or supposed mother rock sediments in the making.

Critical Study of Selected Source Beds: This project contemplates study of four selected geologic formations which are in places sources of petroleum, to determine their mode of formation, their relations to known accumulations of petroleum and natural gas, their characteristics and properties, and in particular the citeria that will distinguish source beds from other sediments and the criteria that will distinguish a "spent" source bed from one which is a potential generator of petroleum. The economic application of these studies should be immediate, important and non-competitive.

Separation, Identification, and Determination of the Components of Commercial Petroleum Fractions: Fundamental chemical research in connection with petroleum is necessarily bound up with the chemical composition of the material. Most of the attempts to fractionate petroleum into its components have been based very largely upon fractionation by distillation. By this method alone the components of petroleum cannot (except in cases involving the lower boiling components) be obtained in a pure state, and most of the evidence as to the chemical

(Continued on Page 124)

RECOVERY PROBLEMS ARE MOST IMPORTANT

Referring to the fact that the American Petroleum Institute now has available $100,000 per year for five years to spend in research, Mining and Metallurgy, the official publication of the A. I. M. E., of which H. Foster Bain, formerly director of the United States Bureau of Mines, is editor, says: "This amount is not large measured against the work to be done and the money involved in the industry. This is all the greater reason for the utmost care in the selection of specific problems and personnel. The trustees of the fund wisely turned to the National Research Council for advice. A committee was assembled to study the problem and from that committee a program of projects has been reported.

"The projects recommended are all grouped as geological, chemical or physical. Since under modern conditions chemistry and physics have become so interwoven that one is never quite certain whether he is conversing with a chemist or a physicist when fundamentals are under discussion, the two may be grouped together. On this basis there are no distinctly engineering projects recommended, and a minority of geological. Those proposed in the latter field are highly theoretical. That is by no means a criticism for it is understood that the donors of the fund wished especially to further the study of the scientific fundamentals of petroleum occurrence, finding, production and use.

"It would seem, however, that some small portion of the money might appropriately be devoted to developing the the knowledge necessary to recovery of the 26,000,000,000 barrels of oil reported by the Committee of Eleven to be left in the ground under the present methods of production. Anyone having occasion to attack this problem is at once faced with the striking lack of data on the behavior of oil, gas, and water in variable proportions, under different conditions of heat and pressure in their travel through the ground. These data must be secured before better methods can be widely applied. They are fundamental. They call for scientific study of the most exacting type, and when secured they will be of value widely in petroleum production and incidentally will serve a useful purpose in other fields such as hydrometallurgy. With every sympathy for the trustees in their exacting task of choosing the most important among many important projects, we respectfully urge that some portion at least of the funds be allotted to the particular study mentioned.

Deep well being drilled by Reserve Gas Company

Deep Well Being Drilled by Reserve Gas Company

THIS well is known as Well No. 918, located in Harrison District, West Virginia, between West Milford and Good Hope, on Smith Farm.

It was started in December, 1924. The well when completed is expected to be the deepest in the world. Special equipment is being used. The Rig is of hard wood, including the Bull Wheel Shaft, which has two brakes of extra heavy type and which will accommodate four tug ropes. The power equipment is composed of 3 30 H. P. boilers, and one 14x14 steam engine. A ⅞" 6x19 Special "Wickwire" rope was used to a depth of approximately 6300 feet, a 5½"x38' stem being used. They then installed a 10,000-ft. Special "Wickwire" rope, the upper 5000-ft. section being 1" in diameter. The splice was made at the well by their own employees.

Following is the data in connection with drilling this well, to and including January 19, 1926:

The first string of casing is of 20" diameter, placed at a depth of 110 ft. to shut off fresh water. This casing was cemented in. This was followed by 1009 ft., 15½"—1356 ft., 12½"—2962 ft., 10"—5043 ft.; 8" to take care of water, caves and gas.

The drilling proceeded without trouble to a depth of 6734 ft., gas being found in the Salt, Injun, Fifty-foot, Fifth and Speechly sands, the volume of which from the last three mentioned sands having an open flow of 700,000 cubic feet, which was Braden headed and turned into the line.

On September 3rd, while drilling at 6734 ft., a pocket of gas was encountered which blew the tools up the hole, broke the wire line, leaving tools and 25 feet of line in the hole. This was fished out without difficulty. On September 9th, at 6754 ft., another pocket of gas was found, which blew the tools up the hole, broke the wire line and left tools and some wire line in the hole, causing a fishing job for six weeks. The tools were found 200 ft. off bottom, and in attempting to drill by to take hold the tools dropped to within 30 ft. of bottom. The tools were finally fished out and found in fairly good condition. At 6775 ft., another pocket of gas blew the tools up the hole but did not break the wire line nor stick the tools.

It was decided to run the 6⅝" casing in the first hard spot encountered, which happened to be a Black Lime at 6824 ft., and since November 13th, they have been running this casing, proceeding slowly and carefully. This 6⅝" casing is in the following sections:

2566 ft. 8" of 36-lb. screw pipe.
1981 ft. 3" of 28-lb. screw pipe.
10 ft. 3" of part screw and part welded pipe.
1808 ft. 2" of 41-lb. welded pipe.
461 ft. of 45-lb. welded pipe.

The entire string of 6⅝" casing is more than one mile in length and weighs 120 tons. The screw pipe is on the bottom and the welded pipe on the top. The casing when first run parted 250 ft. from the top, after it was set on the bottom. They are now re-running this casing.

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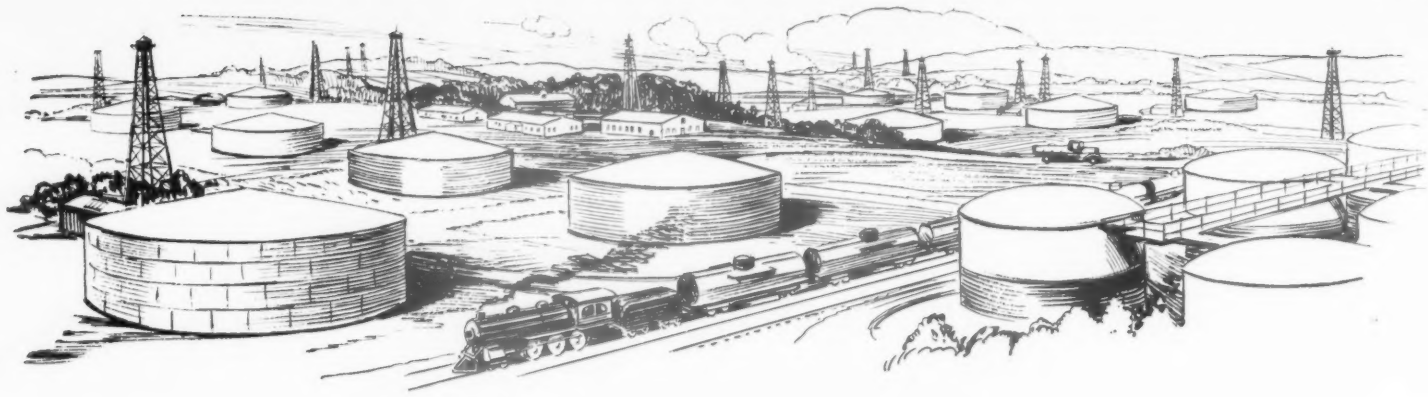

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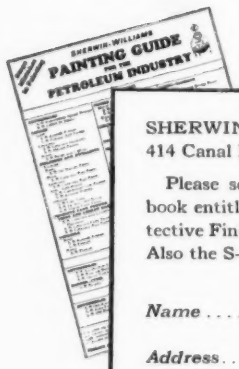

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OKLAHOMA GROSS PRODUCTION SECOND QUARTER INCREASES 3,185,351 BARRELS

Gross production of crude petroleum in Oklahoma for the second quarter of this year totaled 43,046,606 bbls. as compared to 39,861,255 bbls. during the first quarter, according to reports filed with the State Auditor for taxation purposes. The report follows:

A	
Aaronson, C. T., Tulsa	1,368
Acacia O. & G. Co., Pawhuska	856
Ackerman, F. T. & W. C. Cales, Tulsa	215
Acme Dev. Co., St. Louis, Mo.	1,965
Acta Oil Co., Okmulgee	883
Ada Dev. Co., Ada	4,774
Adams & McGahey, Ardmore	188
Adams & Prince, Ardmore	6,049
Adamson, M. E., Tulsa	11,120
Advance Co., Inc., The, Ft. Worth, Tex.	273
Aggas, John, Morris	671
Aggas, W. A., Morris	380
Ajax Oil Co., Tulsa	193
Albion Oil Co., Tulsa	6,970
Aldrew Oil Co., Tulsa	2,083
All American O. & G., Okla. City	2,629
Allen, Sam T., Sapulpa	166
Allen Well Co., Ardmore	646
Allison, B. E., Tulsa	2,317
Almeda Oil Co., Tulsa	4,041
Alton Oil Co., Bartlesville	353
Amerada Petroleum Corp., Tulsa	1,405,976
American Drig. Co., Wichita Falls, Tex.	10,781
American Eagle O. Co., Bartlesville	19,580
American Oil Dev. Co., Pittsburgh, Pa.	10,153
American O. & G. Co., Bartlesville	5,231
American Cont. & Prod. Co., Bartlesville	309
American Royalty Pet. Co., Tulsa	552
Amos & Grindle, Dewey	1,058
Amster, N. L., Boston, Mass.	13,665
Andes O. & G. Co., Tulsa	282
Anolu Pet. Corp., Blackwell	2,920
Anthony, S. W., Mounds	775
Arkansas City Refg. Co., Arkansas City, Kans.	2,962
Arkansas Fuel Oil Co., Pittsburgh, Pa.	44,548
Arthur Oil Co., Sistersville, W. Va.	8,694
Ashland Oil Co., Tulsa	3,323
Associated Oil Producers, Chicago, Ill.	2,619
Atchison O. & G. Co., Atchison, Kans.	3,517
Athey, Earl, Ardmore	624
Atlantic Oil Prod. Co., Dallas, Tex.	182,488
Avery O. & G. Co., Tulsa	2,058
Avery, Cyrus, Tulsa	83
Avery, C. S. Special No. 1, Tulsa	282
Avery, Cyrus S. Special No. 2, Tulsa	165
Avery, E. D., Tulsa	301
Ayling, A. B., Bartlesville	1,435
Aymer, Charles, Nowata	650
B	
Babcock, E. A., Skiatook	494
Bagley O. & G. Co., Auburn, Neb.	3,237
Bailey, F. A., Cushing	177
Bailey, W. B., Bartlesville	535
Baker O. & G. Co., The, Independence, Kans.	148
Baker, Frank A., Tulsa	463
Baker, Harry C., Okmulgee	2,150
Baker & Strawn, Tulsa	13,810
Ball, Cora G., trustee, Coffeyville, Kans.	697
Baltic Operating Co., Bartlesville	7,981
Bamm Oil Co., Tulsa	114
Bander & Franklin, Tulsa	319
Bank of Commerce, Okmulgee	118
Barber Oil Co., Tulsa	281
Barnsdall Oil Co., Tulsa	791,746
Bartles-Johnstone Oil Co., Bartlesville	535
Bartlesville Oil & Imp. Co., Bartlesville	115
Bartlett, D. A., trustee, Marietta, Ohio	219
Baum, Henry, Ardmore	538
Boyle Pet. Co., Oklahoma City	356
Baynes, John A., est., Mounds	202
Bay State O. & G. Co., Kansas City, Mo., and The Paden Oil Co., Oklahoma City	5,778
Bay State O. & G. Co., Kansas City, Mo.	12,271
Baxter, L. W., Tulsa	194
Baxter, L. W., agt., Tulsa	276
B. B. & Waite Drig. Co., Bartlesville	67
Beacon Oil Co., Bartlesville	14,154
Beal, C. E., Tulsa	615
Beams, Drew, Okmulgee	1,013
Beau-Ard Oil Co., Ardmore	596
Beard, Earl, Bartlesville	3,170
Beard, J. G., Duncan	1,060
Beattie, R. L., trustee, Bartlesville	168
Bebout, W. M., Bartlesville	484
Becker & Hutchinson, Okmulgee	28
Beggs O. & G. Co., Okmulgee	9,061
Bellis & Good, Cushing	1,675
Ben Franks Oil Co., Enid	807
Bergen O. & G. Co., Tulsa	5,281
Berlin, R. L. & W. C. Kinnaman, Sedan, Kans.	277
Betsy Pet. Co., Tulsa	30,068
Bertenshaw, F. G., Nowata	1,538
Best, F. A., Mary A., & J. P. Morrison, Tulsa	412
Betty G. Pet. Co., Cement	719
Benage, F. L., Nowata	2,810
Big Ben O. & G. Co., Pawhuska	249
Big Windy Oil Co., Tulsa	295
Billingslea, Lula M., Tulsa	90
Bingman, O. A., Okmulgee	304
Bingman, W. B., Okmulgee	282
Bingman, W. B., tr., Okmulgee	338
Bingman-Smith Oil Co., Okmulgee	4,578
Bird Creek Oil Co., Tulsa	427
Bird, Gaffney & Simons, Bradford Pa.	1,260
Bisett, Lytle & Gray, Tulsa	4,717
Billy Oil Co., Chelsea	146
B. Jack Oil Co., Sapulpa	686
Black, H. L., Perlton	325
Black, J. J., Lemon Grove, Calif.	127
Black, Sivalls & Bryson, Inc., Bartlesville	6,962
Blackstone Oil Co., Tulsa	1,756
Blackwell O. & G. Co., Blackwell	142,200
Blakeslee, H. W., Nowata	1,655
Blum Oil Co., Nowata	97
Board, M., Muskogee	920
Board, M., trustee, Muskogee	310
Bole, Geo. S., Tulsa	25,634
Boles, Neal & Perry, Cleveland	638
Bolivar Run Oil Co., Tulsa	1,140
Bonnell, John H., Los Angeles, Calif.	1,105
Boso, Fred M., Tulsa	2,660
Bovaird, W. M., Sapulpa	6,877
Bovaird & Irvine, Tulsa	71
Bowles-Smith et al, Ada	1,115
Braden Co., The, Tulsa	1,404
Braden, C. E., Tulsa	186
Braden & Beren Oil Co., Eldorado, Kans	133
Braden & McClure Oil Co., Eldorado, Kans.	2,272
Braden & Moore, Tulsa	10,523
Braden & Overton, Tulsa	1,675
Bradfield, C. H., receiver, Tulsa	6,619
Bradford Oil Corp., Robinson, Ill.	600
Bradley, E. A. & Anna, Tulsa	2,985
Bradnorking O. & G. Co., Tulsa	1,049
Bradstreet, J. G., Muskogee	356
Bradstreet, J. G. & Co., Tulsa	483
Brady, E. H., Tulsa	1,631
Brady, E. H., Tulsa, John Swanson, estate, & Fred Swanson, Chanute, Kans. & Dan Kelly, Marietta, Ohio	1,786
Brandes Oil Co., Nowata	78
Branson & Harmon, Nowata	985
Branstetter, Ray, Skiatook	693
Brazell, Jas., Okmulgee	2,919
Breene, Frank M., trustee estate, Tulsa	14,908
Breene, Mabel V., Tulsa	92
Brewer, R. P., trustee, Tulsa	1,932
Bridgman Oil Co., Nowata	241
Bridwell & Heydrick, Wichita Falls, Tex.	1,061
Briggs, Richard, Boston, Mass.	6,838
Bright, Samuel, Okmulgee	973
Britton-Johnson Oil Co., Tulsa	12,845
Brock, Chas. N., Okmulgee	725
Brock, John L., Jr., Okmulgee	2,870
Brown, A. C. Oil Enterprise, St. Louis, Mo.	20,672
Brown, Guy Oil Co., Wichita Falls, Tex.	2,571
Brown, Jas., Bartlesville	1,425
Brown, L. H., Karns City, Pa.	202
Brown, R. D., trustee, Kansas City, Mo.	3,052
Brown, W. E. Co., The, Tulsa	481
Bruner & Abbott, Tulsa	272
Bruner Oil Co., Independence, Kans.	242
Brundred Oil Corp., Oil City, Pa.	1,891
Bucher, P. O., Bartlesville	343
Buckles, C. O., Tulsa	1,675
Bull Head Oil Co., Ardmore	693
Burke, R. J., Shawnee	270
Burns, C. D., Preston	2,868
Burns, C. T., Broken Arrow	82
Burns, Joe, Okmulgee	564
Burns, J. P., Lawton	180
Burns, Joe, receiver, Okmulgee	2,691
Burns, John R., Okmulgee	2,919
Burke, Chas. F., Tulsa	348
Burke-Gibbs Co., Tulsa	4,256
Burke-Greis Oil Co., Tulsa	69,963
Burke & Greis, Tulsa	312
Burke-Hoffeld Oil Co., Tulsa	12,808
Burlingame, C. E., Bartlesville	4,957
Butler, A. B., guardian, Tulsa	113
Butler Bros. Lively & Tucker, Ardmore	1,254
Buttram, Frank, Oklahoma City	153,539
Bu-Vi-Bar Pet. Corp., Bristow	3,962
Byers, C. F., Sapulpa	245
Byers, Myrtle S., guardian, Nowata	18
Bynum, Maude A., Anna Bradley, Irene Hilditch, Edith Parr, Tulsa	839
C	
Cabin Valley Mining Co., Chelsea	3,780
Cala Belle Oil Co., Cement	697
Caldwell, Geneva S., Chelsea	834
Callahan Oil Co., Omaha, Neb.	194
Callahan, W. F., Sapulpa	1,550
Cameron Refg. Co., Ardmore	87,670
Campbell Oil Co., Tulsa	5,622
Campbell, H. L., Nowata	231
Campbell, H. L., trustee, Nowata	216
Campbell, Nevlin, Bartlesville	157
Campbell & Byers, Cherryvale, Kans.	1,478
Campbell & Smith, Bartlesville	75
Campbell, S. J., Wichita Falls, Tex.	244
Canada Oil Co., Nowata	497
Canadian U. S. O. & R. Co., receiver for, Bartlesville	975
Canary, E. L. & A. J., Caney, Kans.	2,841
Canary, J. D., Littleton, Colo.	3,885
Canary & Canary, Littleton, Colo.	3,426
Canary, S. C., Tulsa	9,246
Canfield, W. E. & G. W., Yale	325
Canterbury, S. L., Bristow	1,518
Cappeau, J. P., Jr., F. T. Ackerman & W. C. Coles, Tulsa	95
Carder, A. E., et al, Coweta	175
Carey O. & G. Co., Wellsville, N. Y.	306
Carlock & Dexter, Ardmore	4,034
Carlock, J. H., trustee, Ardmore	7,500
Carner, Akin & Argue, Bartlesville	961
Carpathia Pet. Co., Tulsa	26,128
Carson, B. D., Cleveland	125
Carson Oil Co., et al, Tulsa	4,134
Carson, W. A., Oklahoma City	3,325
Carter Oil Co., Tulsa	1,540,694
Cassidy, Alice, Guthrie	1,846
Cassidy, Hatheryn, Guthrie	739
Cates, J. S., Bixby	1,515
Cayuga Oil Co., Tulsa	371
Central Commercial Oil Co., Tulsa	44
Central Pet. Co., Tulsa	4,567
Central Prod. Co., Muskogee	247
Central States O. & G. Co., Tulsa	1,848
Chamberlain, H. G., Marietta, O.	243
Chamberlain, Cecil C., Tulsa	1,085
Champlin Refg. Co., Enid	97,281
Champlin & Bass, Inc., Holdenville	2,728
Chandler Oil Co., Bartlesville	555
Chestnut & Smith Corp., Tulsa	3,216
Cherokee-Warren O. & G. Co.,	

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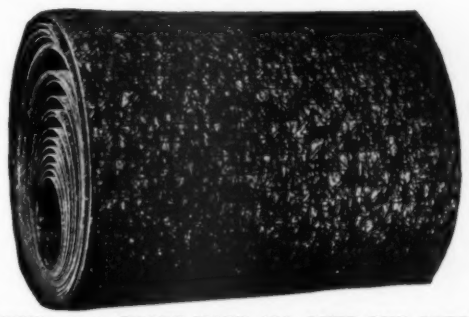

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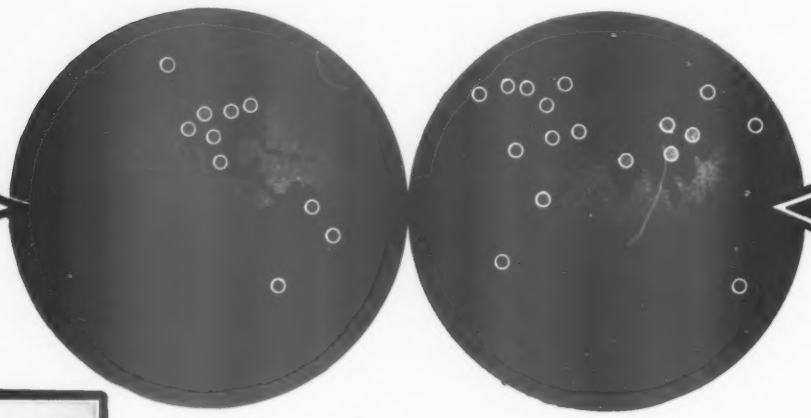
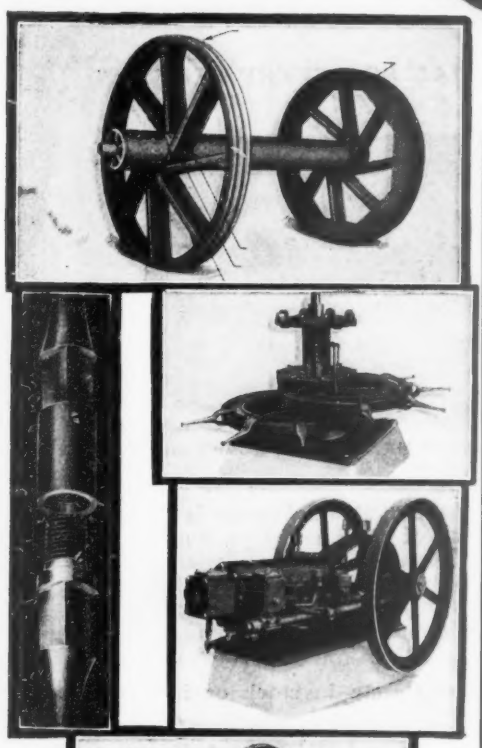




AND NOW

Marion No. 80 "Little Giant Power." This Power is suitable for pumping one to six light wells. It is geared to connect with our No. 10 H.P. Engine or can be operated with belt drive if desired. The entire outfit is bolted to heavy frame base ready to slide on to foundation. The whole outfit can easily be trucked from one lease to another.

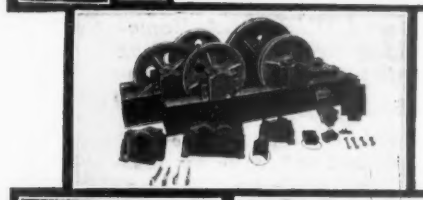
Use coupon below to secure views and further details concerning this new power.

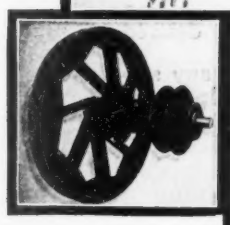
That you may have as complete service as possible, Factory Branches are located in

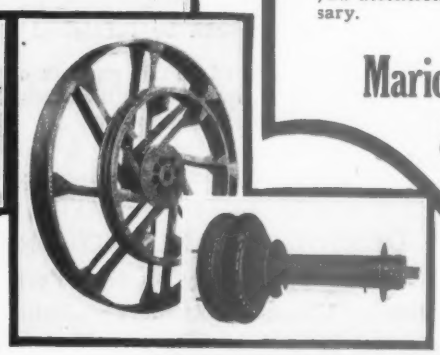
Bradford, Pa.
Scottdale, Pa.
Tulsa, Okla.
Drumright, Okla.
Okemah, Okla.
Bristow, Okla.
Wilson, Okla.
Tonkawa, Okla.
Burkburnett, Texas
Breckenridge, Texas
Ranger, Texas
Panhandle, Texas
El Dorado, Ark.
Olney, Texas
Eureka, Kansas
Dallas, Texas
Moran, Texas
Luling, Texas
Salt Creek, Wyoming
Smackover, Ark.
Long Beach, Calif.

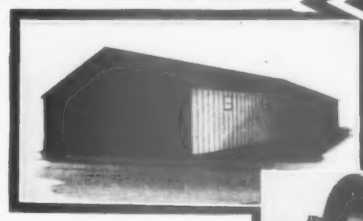
Their managers and assistants are ready to give you attention twenty-four hours a day if necessary.

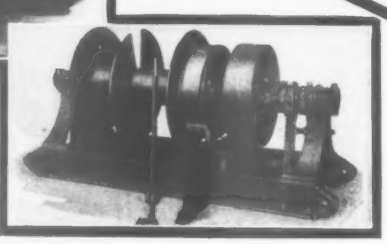
Marion Machine, Foundry & Supply Co.
Marion, Indiana











THE MARION LINE

MARION MACHINE, FOUNDRY & SUPPLY CO.,
Marion, Indiana

Gentlemen:

Please mail us the July Marion Line, showing views and description of the Marion No. 80 "Little Giant Power."

Name .....

City .....

State .....

Tulsa	1,529
Chic-Osage O. & G. Co., Tulsa	235
Choctaw Oil Prod. Co., Tulsa	869
Claymo O. & G. Co., Clayton, Mo.	365
Clover, M. K. & L. G. Neely, est., St. Marys, O.	4,773
Clymax Oil Co., Tulsa	450
Cobb, Guy P., Ardmore	1,852
Cobb & Hollingsworth, Ardmore	2,205
Cobleigh & Shipman, Bartlesville	565
Coe, R. W., Ardmore	1,466
Coe, R. W., tr., Ardmore	13,243
Coggeshall, C. D., Tulsa	71
Cohen, Aaron, Baltimore, Md.	88
Cohn, Dave, Chelsea	261
Coline Oil Co., Oklahoma City	171,648
Collins, Ida M. & Ray M., Tulsa	593
Collis Oil Co., Tulsa	3,130
Colpitt, C. R., Collinsville	892
Colson Oil Co., Tulsa	21,337
Colton, Marguerite, Okmulgee	2,872
Columbia Pet. Co., Oklahoma City	1,766
Cole Oil Co., Tulsa	147
Comar Oil Co., St. Louis, Mo.	2,983,853
Commercial Drlg. Co., Tulsa	5,834
Commercial Nat'l. Bank, Muskogee	708
Commonwealth Oil Co., Warren, Pa.	1,083
Compton, O. W., et al, Independence, Kans.	314
Comstock, A. C., Tulsa	475
Connelly, E. A., Tulsa	528
Connelly, E. L., Tulsa	131
Connelly, W. C., Tulsa	385
Connelly, E. L., et al, Tulsa	3,400
Connelly, G. W., Caney, Kans.	2,293
Constantine, C., Pawhuska	877
Continental Oil Co., St. Louis, Mo.	758
Continental Oil Co., Tulsa	8,792
Continental Oil Co., Denver, Colo.	137,794
Continental O. & R. Co., Independence, Kans.	8,414
Continental Supply Co., St. Louis, Mo.	1,386
Coombs O., G. & L. Co., Bartlesville	800
Cooper, H. G., Tulsa	525
Cora Exploitation Co., St. Louis, Mo.	792
Cornell, H. D., Tulsa	60
Corona Oil Co.-(N. T. Gilbert & Joseph Glass, receivers), Tulsa	1,604
Coronado O. & G. Co., Cleveland	3,095
Correne Oil Co., Tulsa	1,581
Cortez Oil Co., Tulsa	20,366
Cory, M. S., trustee for E. M. Purdy receiver, Tulsa	30,180
Cotton Belt Pet. Co.-(N. T. Gilbert, rec'r., Tulsa	30,180
Cosden O. & G. Co., Tulsa	111,075
Cosden, J. S., Tulsa	3,614
Coswell, Chas. H., Bartlesville	446
Craig, D. F., Independence, Kans.	118
Crawford, J. W. R. & Sons, Inc., Tulsa	340
Creekmore, C. B., Tulsa	411
Cremsl Oil Co., Bartlesville	71
Creo Oil Co., Tulsa	10,960
Crescent Oil Co., Bartlesville	793
Crews estate O. & G. Prod., Enid	18,924
Criswell, Georgia B., Haskell	510
Critchlow, W. S., Ardmore	850
Cronable, J. H., Bartlesville	233
Crosbie, Davis, Sloan & Sturm, Tulsa	1,754
Crosbie & Gillespie Gaso. Plant, Tulsa	3,042
Crosbie, Sturm & Davis, Tulsa	2,892
Crosby Drlg. Co., Inc., Olean, N. Y.	108
Crown Pet. Corp., Houston, Tex.	21,642
Cruce & Potter, Ardmore	1,110
Cruce-Smith-Cruce, Ardmore	1,572
Crude Oil Dev. Corp., Blackwell	1,015
Crump & Beard, Duncan	43,174
Crump & Beard-S. I. Kolb, trustee, Duncan	1,681
Cudahy Oil Co., Cleveland, O.	24,631
Cumberland Pet. Co., Cleveland, O.	23,612
Curtis, W. L. Co., Elmira, N. Y.	142
Curtis, W. L. Co.-F. M. Aiken, Inc., Elmira, N. Y.	1,212
Cusack, F. E., Okmulgee	2,331
Cushing Gaso. Co., Tulsa	6,505
Cushing, Tim, agt. for Earl Oil Co., Bristow	828
Custer Oil Co., Okmulgee	1,122
Cutchall, I. R., estate-W. A. Wise, admr., Sapulpa	74

D

Daisy Belle Pet. Co., Ardmore	7,934
Damme-Pringle O. & G. Co., The, Tulsa	557
Damon Oil Co., Tulsa	2,134
Dana Oil Co., Bartlesville	875
Darby-Lynde Co., The, Tulsa	2,801
Darby Pet. Corp. of N. Y., Tulsa	618
Davis, A. L. & J. P. McNutt, Morris	164
Davis, Joseph D., Tulsa	71
Davis, L. R., Tulsa	1,000
Davis, R. D., Cleveland	510
Davis, W. R., Caney, Kans.	215
D. C. F. S. & Co., Ardmore	930
Dean, John, estate, Guthrie	1,001
Deems, R. G., Tulsa	170
Deep Fork Oil Co., The, Marietta, Ohio	2,092
Deep Rock O. & R. Co., Tulsa	148,232
Delaware Consolidated Oil Co., Tulsa	8,879
Delmar Oil Co., Bartlesville	113,249
Delokee G. & O. Co., Bartlesville	1,558
Denver Prod. & Refg. Co., Okmulgee	5,725
DeSoto Gaso. Co., Houston, Tex.	1,575
DeVinna, M. A., Tulsa	557
Devonian Oil Co., Tulsa	186,465
Diamond, Harry H. Oil Co., Holdenville	475
Dickerson, O. W. Oil Co., Okla. City	62
Dickson, C. E., Tulsa	710
Dierks, Fred H., trustee, Kansas City, Mo.	2,064
Dilley, W. Y., trustee, Waurika	4,552
Dixie Oil Co., Inc., Shreveport, La.	554,396
Dixon, H. O., Bartlesville	3,291
Doak Brothers, Cushing	82
Doak, Jas., Cushing	231
Dobbins, C. W., Ardmore	443
Dock O. & G. Co., Bartlesville	636
Dodd, Wm. A., Tulsa	275
Dolman, L. S., Walter H. Gant, N. B. Feagin & S. W. Tyer, Ardmore	6,975
Dominion Oil Co., Washington, D. C.	260
Donahoe, J. J., Ponca City	1,150
Donahoe, L. C. & F. S. Stryker, Ponca City	2,250
Donahoe, Mabel, Ponca City	1,150
Doris O. & G. Co., Tulsa	987
Dorn, K. C., Tulsa	336
Douglass, Harvey, atty., Chelsea	439
Dover Oil Co., Bartlesville	796
Downing, R. E., Tulsa	1,078
Drake Oil Co., Tulsa	1,786
D. & S. O. & G. Co., Tulsa	1,071
Ducombe, C. L., Sand Springs	127
Duffield, Berlin & Moore, Tulsa	630
Duffield & Howard Oil Co., Tulsa	4,069
Duffield, Lewis C., Tulsa	1,321
Duffield, L. C. & Co., Tulsa	3,165
Duffey, H. M. & J. B. & Bessie A. Dye, Tulsa	1,425
Dunn, S. J., Tulsa	194
Dunn Oil Co., Tulsa	188
Dunnington, A. S., Tulsa	1,173
Durham, Earl, et al, Bristow	3,363
Dwyer, J. D., Tulsa	6,421

E

Eagle-Picher Lead Co., Henryetta	3,595
Eartex Pet. Co.-(E. S. Hall, receiver), Brownsville, Tex.	175
Eason, T. T., Enid	221
Ebling, L. R. & Co., Bartlesville	1,466
Echo Oil Co., Tulsa	24,315
Eliza Tim Oil Co., Sapulpa	324
Elk Oil Prod. Co., Tulsa	682
Ellen O. & G. Co., Tulsa	375
Elliott, W. C., Tulsa	256
Elliott & Smith, Tulsa	30,315
Elliott & Vensel, Tulsa	9,109
Elm Oil Co., Tulsa	17,906
Elmer Oil Co., Elmira, N. Y.	2,259
Elo Oil Co., Tulsa	173
Embree, Sammie F., Henryetta	157
Emery, Lewis, Jr., & Sons, Bradford, Pa.	10,996
Emery Brothers, Bradford, Pa.	2,236
Empire City Co., Tulsa	1,957
Empire G. & F. Co., Del-Okla., Bartlesville	182,995
England, Alma Miller, Ponca City	135
Enterprise Transit Co., Titusville, Pa.	4,264
Enfisco Oil Corp., Tulsa	10,560
Exchange O. & G. Co., Tulsa	1,545
Eysenbach, O. K., Tulsa	1,790

F

Fagar O. & G. Co., The, Enid	28,232
Failing, Beatty & Lorton, trustees, Garber	1,195
Fan-Elva O. & G. Co., Pittsburgh, Pa.	2,662
Farmer, A. L. & A. E. Duran, Tulsa	135
Farr, Arthur, trustee, Golden City, Mo.	142
Farr, Essie, Okmulgee	125
Farren, C. F., estate, Tulsa	2,370
Fay Drlg. Co., Tulsa	85
Fee Oil Co., Muskogee	200
Fern O. & G. Co., Yale	10,790
Fewel, Green A., Muskogee	185
Fidelity Oil Corp., Louisville, Ky.	951
Fifty-Nine Osage Oil Co., Bartlesville	34,030
Finance Oil Co., Gowanda, N. Y.	22,022
Finance Oil Co. & Livingston Oil Co., Gowanda, N. Y.	1,356
Finch, F. L., Tulsa	462
First Nat'l. Bank, trustee, Coweta	180
First Nat'l. Bank, trustee, Coweta	38
First Nat'l. Bank, Dewey	298
Fisher Oil Co., The, Pittsburgh, Pa.	508
Fitzgerald, D. C., trustee, Ardmore	8,197
Fitzgerald, H. L., Tulsa	24
Fitzgerald, John W., Bartlesville	382
Fitzgerald & Withington, Tulsa	1,086
Fitzpatrick, Essie, Guthrie	739
Flanagan & McGrath, Nowata	186
Fleming, Martin C., Tulsa	650
Flesher, W. J., Cement	225
Flat Rock Oil Co., Tulsa	1,280
Flora-Okla. Oil Co., Cement	6,227
Flynn, Olney F., Tulsa	1,575
Force Oil Co., The, Tulsa	1,075
Forster, S. F., Dallas, Tex.	1,018
Fort Ring O. & G. Co., Fort Worth, Tex.	4,885
45 Oil Co., The, Chicago, Ill.	1,931
45 Oil Co., The, & E. S. Bell, Chicago, Ill.	4,853
Foster & Davis, Inc., Bartlesville	11,454
Foster Oil Co., Tulsa	27,460
Foster Pet. Co., Bartlesville	64,576
Foster Pet. Corp. & Charles F. Leech, Bartlesville	468
Fox, W. T., Sapulpa	4,179
Fox Pet. Co., Ardmore	6,250
Franchot, D. W. & Co., Tulsa	130,710
Francis, W. C., Sklatook	174
Franklin Oil Co., Franklin, Pa.	598
Franklin, Wirt, Ardmore	95,916
French, M. C., Okmulgee	820
Fuhrman Pet. Co., Okmulgee	1,445
Funk, A. L., Tulsa	2,612
Future Dev. Co., Okmulgee	725

G

Gaffney, H. E., estate & H. B. Gaffney, Bradford, Pa.	1,785
Gaffney, H. E., estate & Olive Gaffney, Bradford, Pa.	932
Galbraith, H. H., et al, Independence, Kans.	1,314
Galvez Oil Corp., Tulsa	49,509
Gambill, G. U., Terre Haute, Ind.	1,781
Gant, Walter H., Ardmore	1,735
Gardner, H. N., Tulsa	611
Gardner, J. L., Okmulgee	890
Gardner & Avery, Tulsa	214
Gardner Oil Co., Tulsa	78
Gardner Pet. Co., Tulsa	43,334
Garnet Oil Co., Winfield, Kans.	3,285
Garvin Drlg. Co., Duncan	3,482
Gates Oil Co., Ardmore	28,518
Gates Oil Co., Oklahoma City	184
Gates-Cook Drlg. Co., Okmulgee	2,244
Gatewood, Guy, Bartlesville	374
Geneva Pearl O. & G. Co., Ardmore	3,006
Geneva Oil Co., Bartlesville	413
Georgia O. & G. Co., Copan	2,735
Getty, Geo. F., Tulsa	739
Gibson-Zahniser Oil Corp., Tulsa	3,781
Giddings, F. C., C. F. Egan & A. B. C. Dague, Tulsa	780
Gilbert, N. T., general agent and manager for Joseph P. Tumulty and Joseph Glass, receivers, Tulsa	9,039
Gilchrist, Dessie, Bartlesville	835
Gilcrease, Thos., Tulsa	4,816
Gill, A. J., Okmulgee	85
Gillespie, F. A. & Sons Co., Tulsa	28,233
Gillette, J. M., Tulsa	1,650
Gilliland Oil Co., Tulsa	68,975
Gilmer Oil Co., The, Ardmore	42,190
Gilmer Oil Co., Lamine, Mo.	154
Gladys Belle Oil Co., Tulsa	41,901
Glass, J. Wood, Nowata	618
Glass-Reed-McSpadden, Nowata	251
Glass, Robertson & Harmon, No-	

GARLOCK
TRADE MARK

COMPLETE
SHEET PACKING SERVICE
That is
-QUALITY-
CONTROLLED

ASBESTOS PACKING

GARLOCK 900 is a Perfected Compressed Asbestos Fibrous Packing that gives excellent service when used against superheated or saturated steam, air, gas, ammonia and most chemical solutions.

GARLOCK 902 is an Oil Resisting Compressed Asbestos Fibre Sheet Packing processed so as to give satisfactory service working against severe oil conditions.

GARLOCK 901 Graphited Compressed Asbestos Fibre Sheet Packing is the same material as Garlock 900 except that it is graphited on both sides.

RUBBER PACKING

GARLOCK 22 is a Quality Controlled Red Rubber Sheet Packing recommended for use on hot and cold water and saturated steam joints at pressures up to 150 pounds per square inch.

GARLOCK 24 Wire Insertion Red Rubber Sheet Packing is reinforced with woven brass wire and gives excellent service working against hot or cold water and steam on vibrating pipe lines.

GARLOCK 19 Special Duck Insertion Rubber Sheet Packing is recommended for use on heavy hydraulic work as it will not creep in the flange.

GARLOCK 353 Oilblack Rubber Sheet Packing is compounded to resist the deteriorating action of oils and will give good service against heavy or light oil, hot or cold water, steam, ammonia, or alkali solutions.

GARLOCK 91 is a Gray Rubber Sheet compounded to give service against cold water and other fluids.

GARLOCK 619 Diaphragm Sheet Packing is made up with an insertion of heavy duck between plies of first quality strong rubber.

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FOR EVERY SHEET PACKING REQUIREMENT

THE GARLOCK PACKING COMPANY
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The Standard Packing of the World

STEARNS-ROGER

Well Cleaner
Cleans Out Cave In
52 Hours

Large Panhandle Oil Co. had previously worked 28 days on the same cave, using several other well-known cleaning devices, and had not made any headway.

Tool Will Absolutely Free Itself

No Danger of Seizing in Cave

Will Clean

Mud and Paraffin
from the walls
Hard Sand and
after shots
Bridged Holes
Caves

Write for Bulletin 2652

(Clark Patent)

THE STEARNS-ROGER MFG. CO.
ENGINEERS CONTRACTORS — DENVER, COLO. — DESIGNERS MANUFACTURERS

wata	772
Glass & Weaver, Nowata	173
Gled Oil Co., Tulsa	31,055
Glidden, H. P., Tulsa	362
Glidden Oil Corp., Tulsa	3,348
Goddard, C. B., Ardmore	1,580
Godfrey, F. L., Enid	779
Goldie O. & G. Co., Kansas City, Mo.	754
Gooch Lease Oil Co., The, Woodsfield, Ohio	241
Goodyear Oil Co., Tulsa	2,662
Gordon, Mary Louise, Beverly Hills, Calif.	1,725
Gorman, M., trustee, Ardmore	1,080
Gorton Trust, The, Cement	8,756
Graham, Jas. H., Bartlesville	13,704
Graham Mineral Trust, Ardmore	2,866
Grand Duke Prod. Co., Muskogee	515
Gray, Earl Q., Ardmore	475
Gray Oil Co., Tulsa	6,769
Green, W. B., Oklahoma City	2,737
Greenfield Trust, Rock Island, Ill.	1,603
Greenwalt, H. L., Okmulgee	367
Gregg, C. O., Ardmore	4,671
Grieves, John B., Terlton	16,097
Griffin Production Co., Tulsa	2,608
Grimes, W. Baker, Tulsa	209
Grimes, Blair, et al, Tulsa	274
Grimes & Gillespie, Tulsa	28,448
Gypsy Oil Co., Tulsa	2,205,564

H

Hales, W. T., Oklahoma City	80,521
Halfast, E. W., Muskogee	90
Hall, John M., Tulsa	148
Hall & Lucas, Brownsville, Tex.	640
Halsell & Son Oil & Gas Co., Vinita	1,774
Hambro Oil Co., St. Louis, Mo.	8,544
Hamill, A. W., Tulsa	158
Hamilton, W. R., Dewey	1,159
Hamon, Jake L., estate, Ardmore	9,738
Hamon & Colcord, Ardmore	12,985
Hancock, N. M., Shreveport, La.	137
Hancock, W. E., Tulsa	125
Haney, N. B., Ada	606
Haney and H. C. Ewers & Sons, Peru, Kans.	144
Hannis Oil Co., Tulsa	215
Hansen Oil Co., Tulsa	4,744
Harland Oil Co., Wolco	24,704
Harmon, W. J., et al, Okmulgee	3,106
Harmon, C. C., Nowata	2,166
Harmon & Glass, Nowata	9,624
Harold Petroleum Co., Blackwell	17,405
Harrington, W. J., Coffeyville, Kans.	2,727
Harrington, W. M., Marietta, Ohio	183
Harris, L. C., Rising Sun, Ind.	428
Harris, W. B., Tulsa	121
Harris & Haun, Inc., Blackwell	4,600
Harris-Hays Co., Okmulgee	555
Harris-Strawn Oil Co., Ardmore	4,084
Hartley & Suggs, Eldorado Springs, Mo.	222
Hartz, Ben, Baltimore, Md.	300
Harwell, E. P., Tulsa	4,911
Haskell, F. K., Bartlesville	126
Haskell, F. K., trustee, Bartlesville	4,879
Hastings, Earl G., Tulsa	6,500
Hastings, W. T., Marietta, Ohio	384
Hatch, G. W., Nowata	217
Haury, Manahan & Co., Bartlesville	463
Hayden, Hayward, Tulsa	507
Hazen, S. P., Tulsa	95
Hazlett, A. G., Okmulgee	768
Hazlett, Bradford & Frazier Bros., Eldorado, Kans.	2,469
Hayes, Elizabeth R. Crockett, Oklahoma City	77,879
Hayner Petroleum Co., Tulsa	693
H. C. W. Oil Co., Chelsea	578
Healdton Oil & Gas Co., Enid	57,724
Healdton Field Oil Co., Fort Worth, Tex.	1,038
Heenan, J. A., Ardmore	1,466
Hefner, R. A., Ardmore	838
Heggem & Davis, Tulsa	787
Helena Oil Co., Tulsa	381
Helena Oil & Gas Co., Tulsa	9,129
Henderson & Holden, Eldorado, Kans.	878
Hendricks, H. G., Bristow	175
Henderson Co., The, Tulsa	303
Hennessey, J. E., Okmulgee	1,470
Hennessey, J. E. and E. T., Okmulgee	184
Hennessey, J. E. and J. H. Thompson, Okmulgee	129
Henryetta Oil & Gas Co., Henryetta	445
Henry & Avers, Inc., Tulsa	902
Henton, E. L., et al, Chelsea	2,025
Henton & Weible, Chelsea	502
Herber Oil Co., Fort Worth, Tex.	4,616
Hewitt Oil & Gas Co., Ardmore	3,739
Hewitt Mineral Trust, Ardmore	1,296
Hibbard, S. B., S. S. Glascock, and J. R. Hammond, Kansas City, Mo.	814
Hickernell, G. W., Taft, Calif.	618
Higgins, J. R., Tulsa	254
Higgins, J. R. executor, Tulsa	275
Hightower, W. E., trustee, Oklahoma City	12,062
Highway Oil Refining Corp., Tulsa	2,479
Hillside Oil Co., Tulsa	3,804
Hilltop Oil Trust, Ardmore	3,076
Hilt, John H., Tulsa	528
Hilt, John H. and Frank Ben, Tulsa	600
Hinerman & Marshall, Amarillo, Tex.	3,652
Hinkle, Fitzgerald & Westheimer, Ardmore	3,095
Hippodrome Oil Co., Tulsa	716
Hivick, L. C., Oklahoma City	2,138
Hivick, J. P. and L. C., Ardmore	340
Hockensmith, R. A., Okmulgee	525
Hoge, J. B., Nowata	372
Halden Oil Co., Tulsa	611
Hollis, Elsie B., Oklahoma City	137
Holm, Coombs & Chapman, Bartlesville	574
Holmes Oil Co., Tulsa	4,186
Homaokla Oil Co., Oklahoma City	124,785
Home Gas Co. of Cushing, Cushing	12,418
Hooks & Wootten, Cleveland	270
Hope Petroleum Corp., Tulsa	858
Hornecker, Henry, Tulsa	687
Hornecker & Graham, Tulsa	296
Hornecker & Hagler, Tulsa	1,909
Hornecker, Miller & Dunigan, Tulsa	245
Horner, W. H., Cleveland	550
Houston, A. M., Okmulgee	75
Houston, L. N., Okmulgee	150
Houston Oil Co. of Texas, Houston	54,577
Howard Petroleum Co., Tulsa	546
Howard, O. R., Tulsa	29,135
Howard Dean Drilling Corp., Amarillo, Tex.	4,207
Howard & Duffield & Berlin, Tulsa	5,796
Huber, Louis H., Delphos, Ohio	1,695
Huckleberry, J. H., No. 5, Kansas City, Mo.	20
Huddleston, C. T., Okmulgee	1,235
Hudson, Grimes, et al, Tulsa	321
Hudson Oil Co., Wellsville, N. Y.	59
Hughes, Poland A., estate, Cygnet, Ohio	468
Hughes, R. H., Tulsa	80
Hughes & Schwyn, Cygnet, Ohio	463
Hughes-Solether & Brecht, Cygnet, Ohio	250
Hughes-Stone Co., The, Tulsa	2,958
Hulen, H. E., Bartlesville	832
Hulings, F. W., Harlingen, Tex.	209
Hulings, F. W., trustee, Harlingen, Tex.	152
Hulings, M. C., Tulsa	184
Hull, J. A. Co., Tulsa	26,386
Hull, J. A., Tulsa	195
Humble Oil & Ref. Co., Houston, Tex.	301,119
Hummel, Chas. S., Chelsea	68
Hummel, Sadie L., Chelsea	208
Humphreys, L. L., Duncan	895
Hunt & Gastorf, Colorado Springs, Colo.	1,260
Hurdle, H. J., Mounds	173
Hurford, G. H., Tulsa	75
Hutchison, E. A., Bartlesville	105
Hutchinson, L. J., Haskell	160
Hutchinson, E. A., Oil Co., Muskogee	695
Hutt, Annie M., Kansas City, Mo.	78
Hutt, E. F., Kansas City, Mo.	78
Hutt, J. E., Kansas City, Mo.	78
Hyer, F. R., and Hubert Dennis, Okmulgee	35

I

Ice, A. B. and L. F., Tulsa	849
Ideal Oil & Gas Co., Ardmore	1,587
Ideal Royalty Co., Tulsa	1,062
Ilata Oil Co., Vinita	34
Illinois Oil Co., Chicago, Ill.	1,291
Illinois-Okla. Petroleum Corp., Duncan	4,166
Imo Oil & Gas Co., Covington	21,560
Independence Oil Co., Bartlesville	436
Independent Oil & Gas Co., Tulsa	647,449
Indiahoma Corp., The, Okmulgee	6,988
Indian Territory Illuminating Oil Co., Bartlesville	224,942
Indiana Oil & Gas Co., Tulsa	33,391
Inola Oil Co., Tulsa	4,347
Interocean Oil Co., Tulsa	200,885
Interstate Oil & Gas Co., Bartlesville, Okla.	3,763
Invader Oil Corp., Muskogee	4,288
Irelan, O. M., Sapulpa	27,566
Iron Mountain Oil Co., Tulsa	58,158
Irvine, James, Sapulpa	135
Irwin, John S., Bartlesville	552
Irwin-Miller, Bartlesville	648
I. X. L. Drilling Co., Tulsa	52

J

Jackson, L. B., Sapulpa	588
Jackson, S. G., Kaw	1,148
Jackson, Wise & Bovaird, Sapulpa	2,446
Jackson, Wise & Markham, Sapulpa	3,800
Jackson, Wise & Snedden, Sapulpa	1,833
Jacobs, Leo, St. Louis, Mo.	6,477
Jacques, Denton, Arkansas City, Kans.	482
Jacques, Effie M., Arkansas City, Kans.	482
Jane Oil Co., Oil City, Pa.	3,877
Jankowsky, Mose, Tulsa	1,471
Jeff Oil Co., Chelsea	339
Jeffrey, E. B., trustee, Oklahoma City	1,644
Jelinek, John, Nowata	135
Jennings, E. H., Bros. C., Pittsburgh, Pa.	2,447
Jennings, R. G., Pittsburgh, Pa.	12,838
Jennie Oil Co., Chelsea	180
Jennings, R. G., Snowden & McSweeney Co., New York, N. Y.	1,383
Jenson, H. A., Tulsa	341
Jensen, P. W., Chelsea	276
Jewel Oil Co., Tulsa	31
Jim Glenn Oil Co., Tulsa	3,021
Johneda Oil Co., Tulsa	12,350
Johnson, Mrs. C. L., Kansas City, Mo.	72
Johnson Farm Oil Co., Warren, Pa.	892
Johnson Oil Refining Co., Chicago, Ill.	7,417
Johnston, T. A., & Co., Okmulgee	8,985
Jolly-Ogg Oil Co., Muskogee	12,998
Jomac Oil Co., Bristow	3,165
Jones, A. M., Haskell	564
Jones, R. C., & Co., Inc., Cushing	280
Josey Oil Co., Tulsa	403,963
Judson Oil Co. (N. T. Gilbert, receiver), Tulsa	1,286

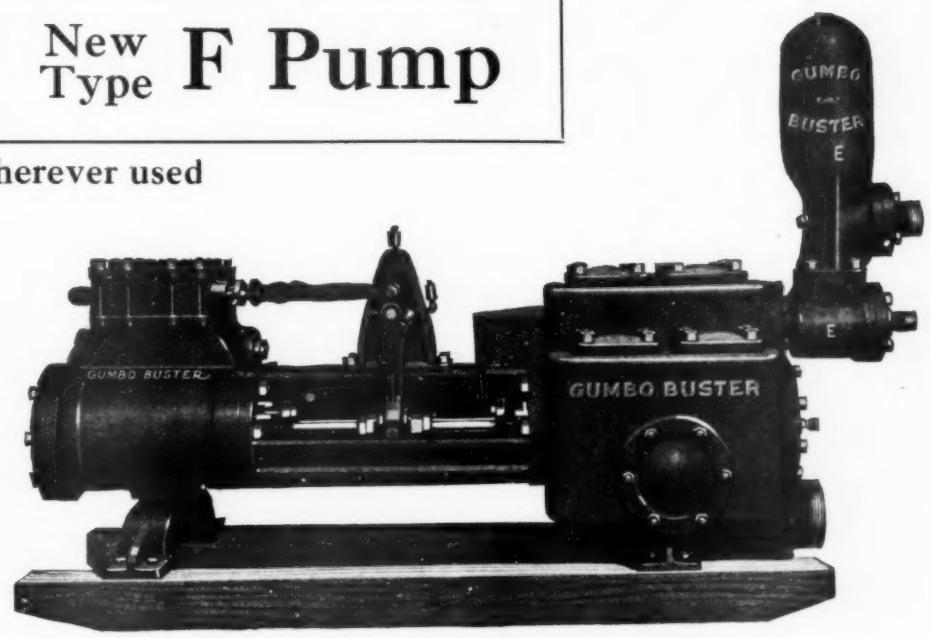
K

Kahn, Sadie, Ardmore	1,412
Kaneta Oil & Gas Co., The, Hutchinson, Kans.	510
Kano Oil Co., Nowata	250
Kanola Oil & Ref. Co., Tulsa	3,061
Kansas-Okla. Cons. Oil Co., Minneapolis, Minn.	733
Kashoma Oil Co., Independence, Kans.	1,731
Katy Oil & Gas Co., Bartlesville	1,394
Katz, B. S., Ada	1,625
Kaw Petroleum Co., Tulsa	160
Kawfield Oil Co.-Illinois Ref. Co., Slick	12,083
Kay & Kiowa Oil Co., Tulsa	28,786
Keener Oil & Gas Co., Tulsa	55,011
Keeter, J. A., Tampa, Fla.	483
Keith, J. H., Coffeyville, Kans.	398
Keith, J. W., trustee, Pawhuska	675
Kell, Frank & Edward Schlaffke, Electra, Tex.	1,868
Kelly, Thomas C., Sapulpa, Okla.	720
Kennedy, J. L. and S. G., Tulsa	2,198
Kennedy, S. G., et al, Tulsa	152
Kerull Oil Co., Tulsa	7,712
Kewanee Oil & Gas Co., Titusville, Pa.	190,245
Keystone Oil & Gas Co., Independence, Kans.	137
King, Frank, Tulsa	301
King, F., et al, Okmulgee	836
King, John, receiver, Tulsa	22,740
King, M. J., Okmulgee	350
King Brothers, Tulsa	1,338
King & Harrington, Tulsa	355
Kingsbury, C. W., Tulsa	331
Kingsbury, C. W. and George Kinney, Sand Springs	111
Kingsbury, C. W., George Kinney, E. M. Monsell and C. F. Tingley, Sand Springs	1,671
Kingwood Oil Co., Okmulgee	91,620
Kinnear & Church, Tulsa	342
Kinnear Drilling Co., Tulsa	81
Kinney, George W., Tulsa	331

"GUMBO BUSTER"

New Type F Pump

—a sensation wherever used



THE OLD

The first pump used on a rotary drilling outfit followed in design pumps equipped for handling clear water. As conditions changed and deeper wells were drilled, calling for higher boiler pressure and stronger pumps, the first small pumps were enlarged and strengthened without any change in design. This enlarging and strengthening has occurred several times until now the original small water pump has reached a point where it is strong enough to withstand the high pressure, but merely strengthening the old style water pump has not solved the present day slush pump demands in a satisfactory manner.

THE NEW

The American Well and Prospecting Company now have designed and made the first real pump for handling heavy mud and high steam pressure, viz.: GUMBO BUSTER TYPE F, 12—6 ¾—16. Valves and suction parts are extra large, and so located that the mud makes but TWO RIGHT ANGLE turns, instead of four, as in other type pumps, thus allowing the fluid end liners to fill quickly and easily, and permitting the mud to pass through at a much slower speed than in the old design pumps, greatly reducing friction and wear, and insuring a smooth running pump under any steam pressure and at all speeds.

The valve does not set down flat on the valve seat, as in old type pumps, but fits into the valve seat at a 45-degree taper, thereby doubling the seating surface. The valve is guided at both top and bottom, insuring a quick and proper closing long life valve.

The Gumbo Buster Type F pump makes a 16-inch stroke. With present day high steam pressure and heavy mud, the longer stroke has a decided advantage for it materially decreases the number of reversals the pump must make, without affecting the pressure the pump will put up, or the volume of mud it will handle. Obviously, decreasing the number of reversals increases the life of the valves and seats and all other working parts. The fluid end piston cannot come out of the liner should the pump overstroke for any reason.

Special Rack for Moving the Rocker Arms.

Piston Rod Stuffing Boxes deepened to accommodate more packing.

Bronze Bushings for rocker arm shafts and connecting rods.

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OIL AND GAS WELL SUPPLIES

ROTARY AND CABLE TOOLS

OKLAHOMA TEXAS ARKANSAS LOUISIANA

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←Regular Pattern, punched from *forged steel*, not welded. Built in standard and intermediate sizes. Look for the name BARSCO—it is stamped on all casing shoes—your assurance of quality.

California and Texas Pattern, punched from→ *forged steel*, not welded. This is a construction used exclusively in all BARSCO shoes. In standard and intermediate sizes.

←BARSCO "Bloom" Pattern, punched from *forged steel*, not welded. The metal in BARSCO shoes has a tensile strength of 90,000 to 110,000 pounds per square inch. In all standard and intermediate sizes.

Rotary Saw Tooth Shoes for rotary system,→ punched from *forged steel*, not welded. The cutting edges are especially tempered and can be hardened to any specifications. Standard and intermediate sizes.

←BARSCO "Baker" Pattern, punched from *forged steel*, not welded. The cutting edges are especially tempered and can be hardened to any specifications. Furnished in standard and intermediate sizes.

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B. & A. Specialty Co., Tulsa, Okla. | Robert J. Miller Co., Houston, Tex. | Miller Tank & Supply Co., Casper, Wyo.

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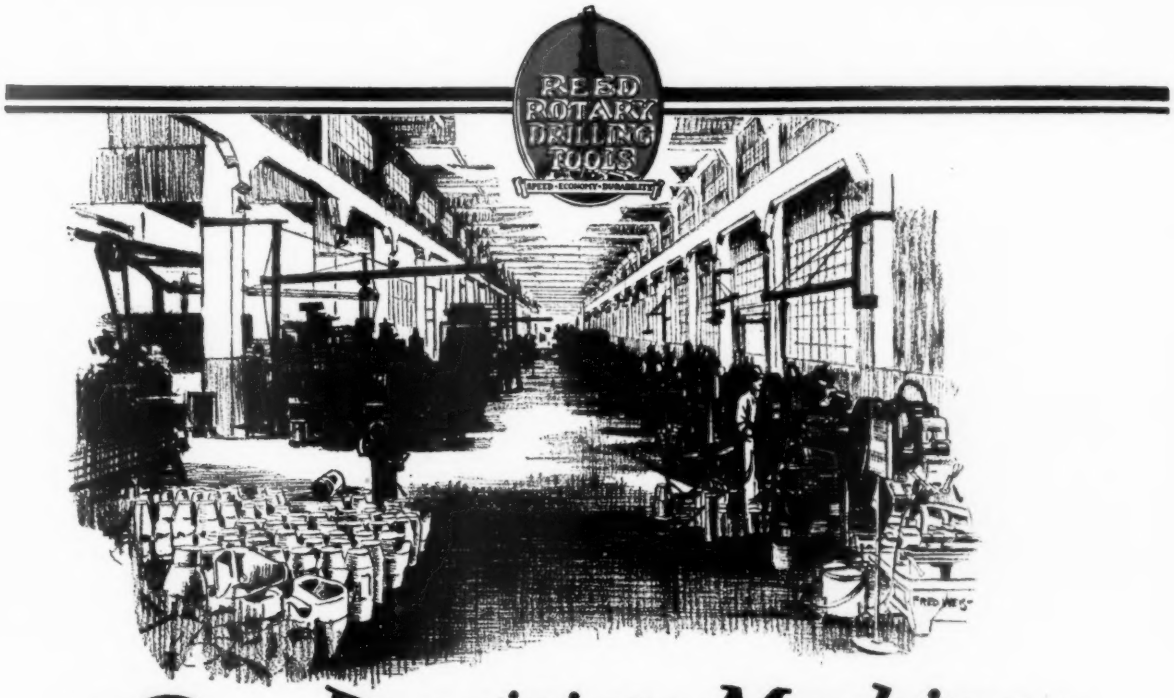
Kinney, George, trustee, Tulsa	399
Kinney-Wood-McIntyre, Tulsa	188
Kirk Oil Co., Ardmore	20,165
Kirkwood & Kennedy, Tulsa	314
Kistler, Ernest L., Tulsa	3,567
Kistler Petroleum Co., Tulsa	9,144
Kline & Brann, Inc., Tulsa	3,023
Knickerbocker Oil Co., Tulsa	2,476
Knight, Minnie, Newkirk, Okla.	489
Knox Petroleum Co., Ardmore	28,670
Knupp Oil Co., Warren, Pa.	4,165
Knupp Oil Corp., Warren, Pa., and Higrade Petroleum & Gas Co., New York, N. Y.	594
Koberling Oil Co., Tulsa	755
Kodi Oil Co., Warren, Pa.	1,084
Kohlenberg, W. C., Sapulpa, Okla.	7,652
Kraeer, O. A., & Co., Bartlesville	1,714
Kroh, LaFayette, Bartlesville	135
Kuhns, James H., estate, Tulsa	774
Kuper, John C., Caney, Kans.	589
L	
Lackawanna Prod. & Ref. Co., Scranton, Pa.	592
Lahman-Bell Oil Co., Dewey	525
Lambert, E. J., Tulsa	1,582
Lambert Oil & Gas Co., Tulsa	6,864
Lamberton, J. S., Tulsa	1,154
Lancaster & Grimes, Tulsa	403
Landon, A. M., Independence, Kans.	22,249
Lane, E., Nowata	1,468
Lane Oil Prod. Co., Chicago, Ill.	2,619
Lane & Wasson Co., agents, Ardmore	2,193
Large Oil Co., Bartlesville	4,648
Larkin, J. J., Tulsa	485
Larkin Oil Co., Tulsa	144
Larkin & Reynolds, Bartlesville	4,133
Lasoya Oil Co., Glen Campbell, Pa.	2,612
Laurel Oil & Gas Co., Tulsa	67,546
Lawson, C. M., and Bessie Shaffer, Coweta	300
Lawson, E. B., Nowata	8,219
Lawson & Griffin, Nowata	201
Lawson & Whitehill, Nowata	1,898
Lawton Corp., Oklahoma City	1,856
Lea Drilling Co., Tulsa	549
Leahy Oil Co., Tulsa	1,659
Lebow, C. H., Tulsa	3,105
Lebow, C. H. and Ralph, Tulsa	1,002
Lee, Frank W., Tulsa	215
LeFever, M. M., Marietta, Ohio	451
Leitner, Thos. R., Tulsa	675
Leonard, J. M., Joplin, Mo.	869
Lesh, Eula, Guthrie	365
Lesh Bros. Oil Co., Wichita Falls, Tex.	2,357
Levant Oil Co., Ardmore	3,220
Levy, I. B., trustee, Oklahoma City	3,974
Lewis Oil Co., Pittsburgh, Pa.	144,216
Lewis-Clarke Petroleum Co., Oklahoma City	1,208
Liberty Oil & Gas Co., Warren, Pa.	1,796
Liebert, Al, Coffeyville, Kans.	436
Liebert, F. F., Tulsa	57
Lightning Creek Oil & Gas Co., Wellsville, N. Y.	388
Lima Oil & Gas Co., Bartlesville	3,384
Lincoln Oil & Gas Co., Tulsa	2,508
Link Oil Co., The, Tulsa	22,975
Lippa, Arthur, Tulsa	109
Little Ed Oil Co., The, Tulsa	2,821
Little Fay Oil Co., Tulsa	19,972
Loar, W. N., & Co., Okmulgee	2,386
Lomore Oil Co., Ardmore	2,949
Lone Star Gas Co., Dallas, Tex.	36,023
Louisiana Oil Ref. Corp., Shreveport, La.	6,194
Louvain Oil Co., Bartlesville	1,612
Love, L. H., Ardmore	2,728
Lovell, Dot L., Marietta, Ohio	1,577
Love, J. A., Marietta, Ohio	952
Lovett Oil Co., Nowata	1,262
Lowrie, A. L., and F. B. Barnes, Robinson, Ill.	1,318
Lowry Oil Corp., Wichita Falls, Tex.	2,622
Lowry-Burns Corp., Wichita Falls, Tex.	562
Lucky Scott Oil & Gas Co., Independence, Kans.	975
Ludy, Chas. A., Marietta, Ohio	2,760
Ludowici-Celadon Co., Chicago, Ill.	3,483
Lynch, C. B., & Co., Tulsa	724
Lynch & Baker, Tulsa	2,446
Lyon, Burt W. and Mary J., Los Gatos, Calif.	580
Lyon-Leonard Oil Co., Los Gatos, Calif.	155
Lyons, J., Tulsa	32
Lyons, J. and L., Tulsa	1,532
Lyons Petroleum Co., Denver, Colo.	3,894
Mc	
McAllister, C. T., Sapulpa	80
McBridge, W. C., Inc., St. Louis, Mo.	9,900
McClintoch, H. H., et al, Bartlesville	1,782
McConnell, Carol S., Tulsa	1,746
McCready, C. H., Tulsa	193
McCulloch Oil Co., Okmulgee	130,644
McDivitt, James, Owasso	171
McDonald, J. H., Muskogee	355
McFarlin & Chapman, Tulsa	290
McGill, A. L., Bartlesville	1,697
McGill, H. R., and Ruth Gilbert, Tulsa	1,419
McGill, J. R., Depew	117
McGraw, J. J., Tulsa	1,042
McGuire, F. H., Guthrie	182
McJenkin, Florence T., Tulsa	266
McKay, Margaret C., guardian, Sapulpa	867
McKeon, P. G., Tulsa	766
McKes Oil & Gas Co., Ardmore	1,850
McKinley, George J., Tulsa	51
McLane Farm Oil Co., Tulsa	953
McMahon, C. L., Inc., Tulsa	58,910
McMahon, C. L. and Kennedy, trustees, Tulsa	21
McMahon, J. L., Wichita Falls, Tex.	97
McMan Oil & Gas Co., Tulsa	131,085
McManus, C. T., Nowata	140
McMechan, W. F., Tulsa	1,365
McMillan, W. J., Cleveland	172
McNutt, J. P., Morris	43
McOwen, Bernard, estate, Buffalo, N. Y.	3,349
McPherson, Beular, Wirt	414
McQueen, I. R., Oklahoma City	6,808
McSpadden, T. R., Nowata	132
M	
Mack Oil & Gas Co., Bartlesville	568
Madden & Madden, Tulsa	8,469
Magnolia Petroleum Co., Dallas, Tex.	2,959,952
Maire, F. L., trustee, Lima, Ohio	125
Majestic Oil, Gas & Ref. Co., DuQuoin, Ill.	1,485
Makeever Bros., Boston, Mass.	1,479
Mallory, S. T., & Co., Tulsa	100
Malloy, Pat, Tulsa	274
Mancill, H. E., Bartlesville	1,141
Marcus, B. M., Olean, N. Y.	108
Margay Oil Corp., Tulsa	84,676
Margulies, Larry J., Tulsa	722
Marietta Oil Co., Marietta, Ohio	1,601
Marlleen Oil & Gas Co., Blackwell	5,768
Mark, Clayton, Muskogee	163
Markham, J. H., Jr., Tulsa	34,012
Markham, J. H., Jr., et al, Tulsa	3,865
Marland Oil Co. of Oklahoma, Ponca City	1,158,762
Marshall Oil Co., Tulsa	142
Marshall Oil Co., Nowata	295
Martin, C. G., Bristow	1,470
Martin, J. E., Tulsa	1,664
Martin, L. J., Tulsa	254
Martin, R. B., receiver, Tulsa	75
Martin, R. B., receiver, Tulsa	660
Martin, S. A. Oil & Gas Co., Chelsea	827
Mason, D. B., Tulsa	11,581
Mason, Allen, estate, and N. C. Fassett, Elmira, N. Y.	245
Matteson, Chas. D., St. Paul, Minn.	445
Maxson, E. E., trustee, Owasso	1,355
Maxwell, D. G., Bartlesville	1,260
Maxwell, D. G., and Patchen estate, Bartlesville	402
Maxwell, D. G., and Jim Irwin & Scott, Bartlesville	240
Maxwell, D. G., and J. W. Thompson, Bartlesville	851
May, Max, Tulsa	31
Mechling & Berlin, Tulsa	635
Mechling & Berlin & McCurry, Tulsa	1,386
Mentzer, Emma M., Pawnee	410
Meridian Oil Co., Inc., Jennings, La.	251
Meridian Petroleum Corp., W. A. Goforth, receiver, Tulsa	11,865
Merrick, F. W., Ardmore	20,295
Merrick, F. W. and R. W. Coe, Ardmore	19,418
Merrick, Ward S., Ardmore	2,211
Merrick, Ward S., et al, Ardmore	1,367
Messner & Clough, Bartlesville	606
Mexada Oil Co., Ardmore	2,818
Midco Oil Corp., Tulsa	34,718
Mid-Continent Petroleum Corp., Tulsa	1,386,646
Middleton, H. B., Tulsa	291
Middleton, H. B., Woodsfield, Ohio	183
Midget Oil & Gas Co., Republic, Mo.	872
Mid-Kansas Oil & Gas Co., Findlay, Ohio	279,336
Midland Oil Co., Bartlesville	88,212
Midland Securities Co., Tulsa	8,206
Miles Oil Co., Tulsa	606
Miller, George L., Marland	525
Minnehoma Oil & Gas Co., Tulsa	92,801
Minshall, E. R., Tulsa	7,705
Minshall, E. R., & Co., Tulsa	2,995
Minshall Oil & Gas Co., Tulsa	2,318
Misener, F. D., Tulsa	13,850
Misener, Lillian J., Tulsa	1,783
Mission Oil & Gas Ref. Co., Santa Barbara, Calif.	157
Mitchel, E. D., and C. D. Jenal, Tulsa	143
Mitchell, Mark D. & Co., Independence, Kans.	818
Mitchell & Murrow, Independence, Kans.	232
Modern Oil Co., Wellsville, N. Y.	300
Moffitt, A., Henryetta	1,995
Mohan Oil Co., Tulsa	16,894
Monon Petroleum Co., Bristow	206
Monroe, J. E., Tulsa	1,760
Montezuma Oil Co., Tulsa	572
Monte Cristo Oil Co., Tulsa	460
Moon Gasoline Co., Tulsa	192
Mooney, L. E., receiver, Chelsea	150
Moore, Frank L., Tulsa	3,265
Moore, Genevieve E., Tulsa	1,783
Moore, Clint, estate, Tulsa	17,445
Moore, W. P., Tulsa	850
Mohawk Petroleum Co., Tulsa	2,110
Moran, J. L., Bartlesville	414
Moran, M., Tulsa	1,392
Morey, E. E., Tulsa	96
Morrison, James, Tulsa	784
Morrison, James B., Tulsa	486
Morrison & Jackson, Sapulpa	3,625
Morton & Co., Bartlesville	36,935
Moseley, C. F., Bartlesville	2,956
Moseley, W. H., Bartlesville	1,525
Mosier, John H., Muskogee	115
Moss & Owen, Tulsa	82
Mountain State Oil Co., Bartlesville	34,127
Mudge Oil Co., Pittsburgh, Pa.	20,696
Mul-Berry Oil Co., Cushing	43,239
Mullendore, Bessie, Cleveland	210
Mullendore, C. V., Cleveland	385
Mullendore, E. C., Cleveland	166
Mullendore & Moore, Cleveland	420
Murphy Oil Co. of Penna., Philadelphia, Pa.	1,082
Murry, John Y., trustee, Tulsa	300
Muskogee Oil Corp., Muskogee	392
Myers, C. M., Tulsa	809
Myers Oil & Gas Co., Tulsa	308
Myers & Twichell, Okmulgee	5,415
N	
Nadel, L., Tulsa	629
Nadel, Sophia, Tulsa	1,630
Nadine Oil Co., Cleveland	3,081
Nancy Oil Co., Sapulpa	416
National Oil & Dev. Co., Tulsa	10,866
National Union Oil & Gas Co., Blackwell	10,698
National Supply Co., Midwest, The, Independence, Kans.	66
Neal, A. W., Bartlesville	37
Neal, D. F., Cleveland	701
Neice, Chas. E., Tulsa	366
Neubeck, W. L., Marietta, Ohio	220
Neustadt, W., Ardmore	597
New England Pipe Line Co., Boston, Mass.	156,216
New Haven Oil Co., Bartlesville	5,132
Newman, The W. C., Corp., et al, Tulsa	1,577
New Pocahontas Oil & Gas Co., Oklahoma City	607
Newton & Pinson, Coweta	210
Nicaragua Oil Co., Freeport, Ill.	1,597
Night & Day Oil Co., Lawton	298
Ninety-Oil Co., Tulsa	602
Noble Oil & Gas Co., Tulsa	7,130
Noble, Chas. F., Tulsa	20,130
Noble, Lloyd, and A. O. Olson, Ardmore	3,863
Noble & Olson et al, Ardmore	5,709
Nolan, D. D., Chanute, Kans.	63
Nolan-Jackson, Sapulpa	1,008
Nothland Gasoline Co., Tulsa	3,270
Northrop, Mary Sells, Tulsa	248
Northrup, C. M., Miles, Mich.	137
Norwood Oil Co., Tulsa	10,201

(Continued on Page 102)



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This tool efficiently cuts not only hard rock, but semi-hard formations as well.

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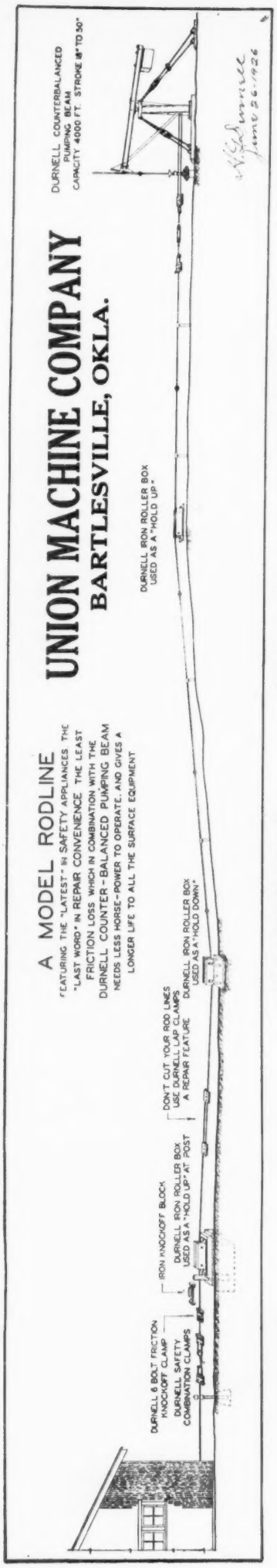
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FEATURING THE "LATEST" IN SAFETY APPLIANCES THE "LAST WORD" IN REPAIR CONVENIENCE THE LEAST FRICTION LOSS WHICH IN COMBINATION WITH THE DURNELL COUNTER-BALANCED PUMPING BEAM NEEDS LESS HORSE-POWER TO OPERATE, AND GIVES A LONGER LIFE TO ALL THE SURFACE EQUIPMENT
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DURNELL 6 BOLT FRICTION KNOCKOFF CLAMP
DURNELL SAFETY COMBINATION CLAMPS
IRON KNOCKOFF BLOCK
DURNELL IRON ROLLER BOX USED AS A "HOLD UP" AT POST
DON'T CUT YOUR ROD LINES USE DURNELL LAP CLAMPS A REPAIR FEATURE
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DURNELL COUNTERBALANCED PUMPING BEAM
(PAT. APP'D. FOR)

Union Machine Company
BARTLESVILLE, OKLA.

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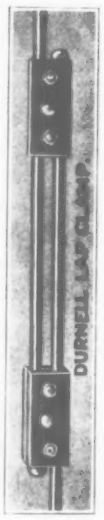
DURNELL CABLE

Specialties for sale by all supply stores. Ask for them.
Patents Pending

AS A HOLD UP

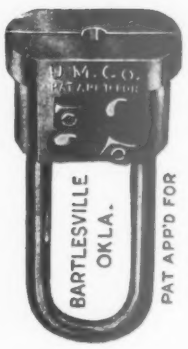
LAP CLAMP

Saves time, labor. Do not cut pull rods. Extra rod for repairs.



KNOCK OFF BLOCK

Now standard equipment. The original. Beware of infringements.



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Features—Extra long U, 12" clear; U-Heads can not slip; Smooth knock off face. Made for upset and regular pull rods.

Permits setting knock off posts farther away. A help in rod line repair.

FIRST WEST TEXAS AND PANHANDLE LOCATIONS

(Continued from Page 52)

NW, Section 20, Block Y; No. 7 Johnson Brothers-Powell, 979 feet south and 330 feet east NW cor. NW, Section 20, Block Y.

Gray County

H. B. Eller's No. 1 J. K. Crews, 330 feet north and east of SW cor. Section 12, Block 25, H. & G. N. Survey. Magdeline Oil Co.'s No. 1 J. E. Williams, 330 feet north and east of SW cor. NW, Section 17, Block 1, A. C. H. & B. Survey. The Texas Company's No. 2 A. Holmes, 330 feet north and west of SE cor. Section 87, Block 3, I. & G. N. Survey; No. 4 A. Holmes, 330 feet south and 990 feet west of NE cor. E half SE, Section 87, Block 3, I. & G. N. Survey. Upham Gas Co.'s No. 1 W. E. Gammage, center of Section 4, Block 25, H. & G. N. Survey.

Wheeler County

American Refining Co. and others' No. 1 E. E. Carlton, C W half, Section 29, Block 13, H. & G. N. Survey. Bayles & Johnson's No. 1 S. L. Lewis, 330 feet south and west of NE cor. SE SW, Section 40, Block 24, H. & G. N. Survey.

Collingsworth County

Allmen and others' No. 1 D. D. McDowell, center of SW, Section 107, Block 22, H. & G. N. Survey.

Donley County

A. T. Drilling Co.'s No. 1 F. E. Harrington, center of SW Section 39, Block C-3, G. C. & S. F. Survey.

Wichita County

Simms Oil Co.'s No. 5 B. F. Dutton, 814 feet NE most westerly NW cor. and 164 feet SE NW line of lease out of Section 12, League 4, Denton County School Land, A-417. R. R. Clark and others' No. 8 Ward & Todd, 150 feet north and 340 feet west of SE cor. north 25 acres of Lot 12, Ward & Todd Subdivision, and located in A. B. & M. Survey No. 11, A-339. Central Holding Co.'s No. 4 (12) Grace Jennings, 150 feet north and east of middle south line of north 40 acres of S half NW, Section 12, H. & T. B. Survey, A-473. Electra Gulf Oil Co.'s No. 9 William Murrey, 550 feet north and 150 feet east of SW cor. 40-acre lease of of J. B. Balch Survey, A-12; No. 10 William Murrey, 650 feet north and 150 feet west of SE cor. 40-acre lease out of H. B. Balch Survey, A-12. Empire Gas & Fuel Co.'s No. 19 Pierce Oil Corp., 1,510 feet north and 490 feet east of SW cor. 100-acre lease out of Section 9, H. T. & B. Survey, A-135. L. P. Hammond's No. 1 Ward & Todd, 150 feet south and west NE cor. south 40 acres of Lot 12, Ward & Todd Subdivision and located in Survey 11, A-339. J. E. Jones' No. 5 Grace Jennings, 150 feet south and 800 feet east of middle north line of south 40 acres NW, Section 12, H. T. & B. Survey, A-473. O'Donohoe & Gates' No. 1 Allen & Kemp-C, 1,500 feet south and 1,900 feet east of NW cor. Block 28, Kemp's Wichita Valley, Lands, being 150 feet south and east of NW cor. 20-acre lease. Petroleum Production Co.'s No. 5 Allen & Kemp-D, 1,500 feet south and 1,600 feet east of NW cor. Block 28, Kemp's Wichita Valley Lands, being 150 feet south and west of most northerly NE cor. 60-acre lease. Rubsam, Hunter & Hunter's No. 1 R. L. Eads, 1,076 feet south and 1,293 feet west NE cor. Section 4, G. C. & S. F., A-600. Ryan Petroleum Co.'s No. 4 A. C. Henson, 500 feet north and 175 feet west of most southerly SE cor. W. R. Eanes Survey, A-753; No. 78 G. L. Nance, 2,500 feet south and 800 feet east NW cor. Sam O. Fowler Survey, A-78; No. 79 G. L. Nance, 1,900 feet south and 1,400 feet east of NW cor. Sam O. Fowler Survey, A-78. Texhoma Oil & Refining Co.'s No. 10 T. L. Burnett-E, 150 feet north and west of SE cor. NW Section 2, T. & N. O. Survey, A-506.

Wilbarger County

Empire Gas & Fuel Co.'s No. 48, W. H. Stephens, 830 feet south and 490 feet west of NE cor. of Section 83, Block 14, H. & T. C. Survey. Magnolia Petroleum Co.'s No. 74, H. & T. C., 1,000 feet north and 3,100 feet east of SW cor. Section 15, Block 13, H. & T. C. Survey. Phillips Petroleum Co.'s No. 6 W. T. Waggoner-L, 220 feet south and 290 feet east of NW cor. SE SE, Section 45, Block 4, H. & T. C. Survey; No. 4 W. T. Waggoner-HH, 220 feet south and east of NW cor. 40-acre lease "HH" out of Section 42, Block 4, H. & T. C. Survey; No. 10 W. T. Waggoner-NN, 150 feet south and 1,227 feet east of NW cor. 177-acre lease "N" out of Section 42, Block 4, H. & T. C. Survey. Waggoner Refining Co.'s No. 1 W. T. Waggoner-D, 1,470 feet north and 2,490 feet west SE cor. Section 47, Block 4, H. & T. C. Survey. Wichtex Oil Co.'s No. 1 L. P. Woodard, 150 feet south and east of NW cor. S half SW, Section 54, Block 15, H. & T. C. Survey.

Archer County

Alexander & Barnes' No. 1 W. E. Allison, 150 feet north and east, SW cor. north 40 acres south 100 acres west 160 acres, Section 17, Block 1, H. & T. C. Survey, A-222. Caldwell and Consolidated Oil Co.'s No. 7 W. T. Hutcheson, 450 feet south and 150 feet west of NE cor. Lot 12, Power Subdivision, Section 123, A. T. N. C. L. Survey. J. R. Elliott's No. 3 L. F. Wilson, 740 feet south and 150 feet east of NW cor. west 40 acres of Lot 4, Section 75, A. T. N. C. L. Survey. Empire Gas & Fuel Co.'s No. 3 J. R. Parkey, 150 feet south and west NE cor. Section 1, S. P. R. R. Survey, A-423. Empire Gas & Fuel Co. and Moran's No. 1 J. R. Parkey-A, 150 feet south and west of NE cor. NW 40 acres of south 180 acres of west half, Section 2, S. P. R. R., A-1,233. Kentucky Oil Corp.'s No. 1 L. F. Wilson-Q, 150 feet north and west SE cor. Lot 24, Section 118, A. T. N. C. L. Survey. Marland Oil Co.'s No. 2 Mrs. J. H. Turbeville, 1,334 feet south and 2,120 feet west of NE cor. Robert Carson Survey, No. 172, A-106. McCorty Oil Co.'s No. 3 L. F. Wilson-Dillday, 150 feet south and 200 feet west NE cor. Lot 401, Geraldine Subdivision, and located in G. H. & H. Survey, No. 1, A-160; No. 2 Wilson-McCrory "Luke," 150 feet south and east of NW cor. Lot 560, Geraldine Subdivision and located in H. & T. C. Survey, No. 1, A-227; No. 2 Parrish Brothers-Duke, 150 feet north and 450 feet west of SE cor. Lot 2, Geraldine Subdivision, and located in J. T. Tucker Survey, A-1,113. The Texas Company's No. 1 W. R. Brown, 600 feet south and 1,200 feet east NW cor. W. R. Brown 181-acre tract, Section 106, A. T. N. C. L. Survey; No. 2 Mrs. J. H. Turbeville-C, 1,034 feet south and 1,520 feet west of NE cor. Robert Carson Survey, No. 172, A-106. Texhoma Oil & Refining Co.'s No. 15 W. B. Hamilton, 706 feet north and 1,050 feet west of SE cor. Section 22, League 4, Denton County School Land, A-114. Cook & Reeder's No. 3 A. M. Kunkel, 450 feet north and 150 feet east of SW cor. 20-acre lease, Section 3, B. B. B. & C. Survey, A-51. Continental Oil Co.'s No. 9 J. F. Rogers-A, 487 feet north and 150 feet west of SE cor. 35-acre lease out of N half Section 2,407, T. E. & L. Survey. Gates Oil Co. and others' No. 5 W. H. Thomas, 450 feet south and 150 feet west NE cor. 80-acre lease north of N. Thomas Survey, A-454; No. 6 W. H. Thomas, 1,950 feet south and 150 feet west NE cor. 80-acre lease north of N. Thomas Survey, A-454. Golding & Cochran's No. 4 A. J. Lowe, 410 feet north and 300 feet west SE cor. Section 2,402, T. E. & L. Survey. Grebin and others' No. 1 M. V. Spradlin, 450 feet south and 150 feet east NW cor. east 80 acres Section 13, L. M. Pasture Subdivision. Marland Oil Co.'s No. 2 W. H. Thomas-B, 150 feet north and 548 feet west SE cor. 20-acre lease Lot 6, North Subdivision, N. Thomas Survey, A-454. Philmack Oil Co.'s No. 1 T. B. Wilson, 2,400 feet north and 1,800 feet east of SW cor. Section 151, Club Ranch Subdivision. Roxana Petroleum Corp.'s No. 5 Julius Kreeger, 450 feet south and east NW cor. 40-acre lease, Section 2,434, T. E. & L. Survey.

Clay County

Western Oil Corp.'s No. 1 J. W. Culbertson, 150 feet south and east NE cor. NW Section 61, Parker County School Land, A-374. Fabian, Miller & McGann's No. 1 G. A. Scaling, 150 feet north

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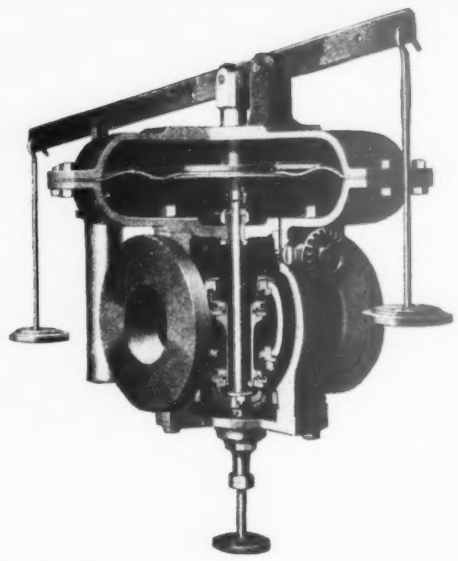

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and east SW cor. Lot 16, W. E. Lawrence Subdivision, and located in Section 19, H. & T. B. Survey, A-218.

Cooke County

C. C. Lanier's No. 1 A. Hyman, 150 feet south and 30 feet west of NE cor. west 40 acres, north 80 acres, east 113 acres of south half of T. J. Moss Survey, A-736. Lanier and others' No. 4 A. Hyman, 450 feet south and 900 feet west of NE cor. S half T. J. Moss Survey. Sun Oil Co.'s No. 1 A. Hyman, 450 feet north and 150 feet west SE cor. north 47.5 acres, west 95 acres, east 208 acres, S half of T. J. Moss Survey, A-736.

Montague County

F. H. E. Oil Co.'s No. 8 Robert Hinds A, 150 feet south and 529 feet east NW cor. 20-acre lease out of J. J. Wall Survey, A-1,199. F. H. E. Oil Co. and others' No. 3 N. J. Howard and others-A, 1,939 feet north and 2,508 feet west SE cor. of John Chambliss Survey, A-123.

Jack County

Buttran Petroleum Co.'s No. 2 C. K. Cullers, 250 feet north and 750 feet west of SE cor. north 50 acres of C. K. Cullers 130-acre tract out of S. Chairs Survey, A-930; No. 1 Mrs. E. S. Gaskin, 330 feet south and east of NW cor. Section 1, B. B. S. & F. Survey, A-80. Oldham and others' No. 2 William Danna, 100 feet south of middle of north line, Section 3,313, T. E. & L. Survey.

Young County

Atlantic Oil Producing Co.'s No. 8 R. H. Rachuig-B, 750 feet south and 450 feet west of NE cor. 50-acre lease out of NW, Section 4, B. B. B. & C. Survey, A-1,838; No. 9 R. H. Rachuig-B, 1,050 feet south and 450 feet west of NE cor. 50-acre lease, NW Section 4, B. B. B. & C. Survey. Bridwell & Heydrick's No. 9 A. Beardon, 450 feet south and 150 feet east NW cor. their 51-acre lease and located in S. G. Hardaway Survey, A-136. Cosden-Consolidated's No. 1 S. M. J. Benson-B, 150 feet south and east of NW cor. east 30 acres of south 70 acres, Section 1,391, T. E. & L. Survey. Evans and others' No. 3 J. P. Logan, 150 feet north and west SE cor. SE Section 24, Young County School Land, A-1,284. Madden and others' No. 3 S. M. J. Benson, 150 feet north and 450 feet east SW cor. east 65 acres, south 165 acres, Section 1,451, T. E. & L. Survey. J. J. Moran's No. 3 Graham Stewart, 1,854 feet south and 1,262 feet west of NE cor. D. Dawson Survey, A-76. Robert Oil Co.'s No. 1 J. D. Spencer, 150 feet south and 750 feet east NW cor. Section 1,396, T. E. & L. Survey; No. 1 Graham Stewart, 1,590 feet south and 1,860 feet west NE cor. of D. Dawson Survey, A-76. Rigs and others' No. 2 J. W. Jones, 450 feet south and 150 feet east NW cor. south 40 acres, east 80 acres, J. W. Jones 160-acre tract out of S. Sallie Survey, A-252. Ruff and others' No. 1 Graham Stewart, 1,890 feet south and 1,860 feet west NE cor. D. Dawson Survey, A-76. Simms, Cosden and Consolidated Oil Co.'s No. 2 W. W. Gregg, 150 feet south and west of NE cor. Section 17, Young County School Land. Sun Oil Co.'s No. 11 Otto Deitrich, 750 feet south and east of NW cor. 114-acres lease out of NE Section 4, B. B. B. & C. Survey ,A-1,700. Tidal Oil Co. and others' No. 2 S. M. J. Benson, 150 feet north and west of SE cor. west 100 acres, south 165 acres, Section 1,451, T. E. & L. Survey; No. 3 S. M. J. Benson-A, 150 feet south and 1,225 feet NE cor. Section 1,450, T. E. & L. Survey; No. 7 S. M. J. Benson- A, 450 feet north and east SW cor. 99.3-acre lease out of Section 1,450, T. E. & L. Survey. The Texas Company's No. 14 A. Beardon, 1,900 feet north and 1,514 feet west SE cor. of I. A. Payne Survey, A-1,514 and located in J. A. Hopkins Survey, A-2,086. Atkinson & Sandefer's No. 2 H. M. Ford, 250 feet south and east of NW cor. their 60-acre lease out of W. T. Carter Survey, A-62. Nance & Lucas' No. 1 J. W. Beezer, 200 feet south and east of NW cor. of west 60 acres, north 124.5 acres, Jacob Carrett Survey, A-108.

Throckmorton County

Hoffer Oil Corp.'s No. 1 J. A. Mathews, SE cor. Section 14, Comanche Indian Reserve. H. H. Overlees' No. 1 J. A. Mathews, C N half, Section 39, Comanche Indian Reserve.

Shackelford County

Humble Oil & Refining Co.'s No. 12 W. I. Cook, 150 feet north and 1,050 feet west of SE cor. S half SW, Section 84, Block 10, E. T. & R. R. Survey. W. L. Knight's No. 1 R. J. Moberly, 150 feet north and east SW cor. Section 13, Block 11, T. P. Survey. Roeser & Pendleton and Marland Oil Co.'s No. 20 W. I. Cook-A, 450 feet north and west SE cor. NE SW, Section 84, Block 10, E. T. R. R. Survey; No. 21 W. I. Cook-A, 150 feet north and west of SE cor. NW SE, Section 84. No. 22 W. I. Cook-A, 506 feet north and 150 feet west SE cor. NW SE, Section 84; No. 22 W. I. Cook-A, 506 feet south and 150 feet west NE cor. NW SE, Section 84. Roeser & Pendleton's No. 9 W. I. Cook-B, 150 feet south and west of NE cor. SE SE, Section 84, Block 10, E. T. R. R. Survey; No. 12 W. I. Cook-B, 150 feet south and 506 feet east NE SE NE, Section 85; No. 16 W. I. Cook-B, 450 feet north and east of SW cor. NE NE, Section 85; No. 17 W. I. Cook-B, 150 feet south and 506 feet west of NE cor. SE NE, Section 85.

Palo Pinto County

Mark Dalton and others' No. 1 R. S. Dalton, 150 feet south and 800 feet east NW cor. Section 1,787, T. E. & L. Survey.

Eastland County

Panhandle Refining Co.'s No. 2 J. R. Wright, 550 feet south and 850 feet east NW cor. N half, Section 52, Leagues 3 and 4, McLennan County School Land. Texas Development Co.'s No. 2 Mrs. B. C. Lewis, 800 feet south and 250 feet west of NE cor. W half NW, Section 44, Block 4, H. & T. C. Survey.

Callahan County

Amerada Petroleum Corp.'s No. 4 M. L. Long, 240 feet south and 450 feet east NW cor. N half, M. L. Long 37.5-acre tract out of W. G. Anderson Survey; No. 5 M. L. Long, 240 feet south and 537 feet west NE cor. N half, M. L. Long 37.5-acre tract out of W. G. Anderson Survey. Canyon Oil & Gas Co.'s No. 6 D. H. Derrington, 446 feet south and 150 feet east NW cor. west 17.5 acres of D. M. Darrington 37.5 acre tract W. G. Anderson Survey. Miss N. McCheeney, 150 feet north and east SW cor. east 10 acres D. N. Derrington 37.5-acre tract out of W. G. Anderson Survey. T. B. Slick's No. 3 B. B. Bond, 240 feet north and 450 feet east SW cor. B. B. Bond 17.5-acre tract out of W. G. Anderson Survey.

Coleman County

Schermerhorn and others' No. 1 G. M. Gray, 150 feet north and 2,465 feet east SW cor. Victoria County School Land.

Brown County

A. H. Bowers' No. 1 Mrs. Nannie Eads, 150 feet north and west SE cor. Mrs. Nannie Eads' 123.25-acre tract out of J. Day Survey, No. 636. Choate & Hanshaw's No. 1 Mrs. R. M. Lowe, 150 feet south and east NW cor. R. M. Lowe 320-acre tract out of Gas Stubblefield Survey, No. 622. J. S. Cosden's No. 4 Elmo Williams-A, 200 feet north and 1,137 feet west SE cor. R. L. Coffett Survey, A-1,688; No. 10 Elmo Williams-A, 600 feet north and 1,013 feet west SE cor. R. L. Coffett Survey, A-1,688. Curry & Moore's No. 2 G. W. Pickett, 750 feet south and 450 feet west NE cor. west 50 acres of G. W. Pickett 150-acre tract out of G. Logan Survey, No. 147; No. 2 G. W. Pickett-A, 150 feet south and 450 feet east NW cor. G. W. Pickett 164.5-acre tract out of G. W. Pickett Survey, A-2,038; No. 1 T. S. Williams, 150 feet north and east SW cor. south 65 acres Mrs. T. S. Williams 234-acre tract E. T. R. R. Survey, No. 157, A-214. J. K. Hughes Development Co.'s No. 3 J. K. Keller, 150 feet south and 1,350 feet west of NE cor. 99.5-acre lease R. Mitchell Survey, No. 141. Humble Oil & Refining Co.'s No. 6 J. T. Hodnett, 920 feet north 1,775 feet east of SW cor. J. T. Hodnett 40-acre tract in Mrs. J. M. Hodnett's 400-acre tract, Mrs. J. M. Morris Survey, No. 784; No. 7 E. P. & W. H. Kilgore-C, 200 feet north and 596 feet west of SE cor. west 30 acres

NATIONAL BELT TIGHTENER

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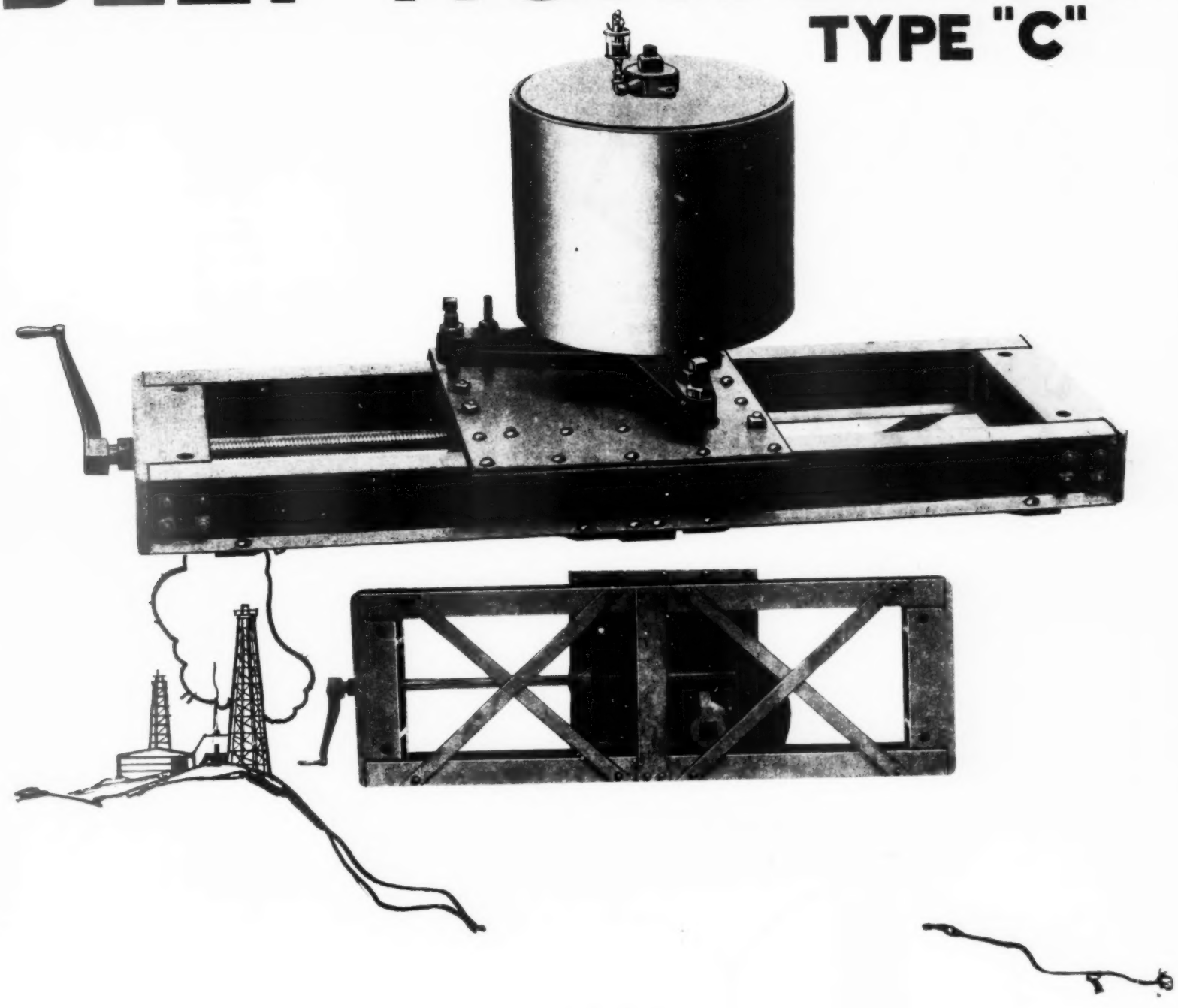

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Pittsburgh

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E. P. & W. H. Gilgore 50-acre tract out of Thomas Benson Survey, No. 783; No. 5 E. P. & W. H. Kilgore-D, 200 feet north and 818 feet west SE cor. west 81-acre tract, Section 2, Juan Delgado Survey, No. 785. Hurley Oil Co.'s No. 1 M. A. Perry, 150 feet north and 450 feet west SE cor. John Vanwinkle Survey, No. 64, and located on N. A. Perry 160-tract. McLester Oil Co.'s No. 8 Josie Woolridge, 1,100 feet south and 800 feet east NW cor. east 96 acres of Josie Woolridge 160-acre tract out of M. B. Gaines Survey, A-1,400; No. 8 W. M. Woolridge, 150 feet north and 203 feet west of most easterly SE cor. 90-acre lease Section 15, E. T. R. R. Survey, A-297; No. 9 W. M. Wooldridge, 150 feet south and 450 feet west of SE cor. Prairie Oil & Gas Co.'s 60-acre lease and located on McLester Oil Co.'s 90-acre lease E. T. R. R. Survey, No. 157, A-297. Price & Daniels' No. 1 J. J. Andrews, 660 feet south and 150 feet west NE cor. J. J. Andrews 320-acre tract out of C. C. Banister Survey, No. 627. E. L. Smith's No. 1 J. T. Brooks, 320 feet north and 450 feet east SW cor. J. T. Brooks 35-acre tract out of W. A. Marr Survey, A-1,704. The Texas Company's No. 1 G. B. Gaines, 150 feet north and east SW cor. G. B. Gaines 426-acre tract out of William Miller Survey, No. 149. Wentz Oil Co.'s No. 1 J. W. Shore, 150 feet south and west of NE cor. west 240 acres J. W. Shore 320-acre tract out of Charles S. Betts Survey, No. 625. West and H-Y Oil Co.'s No. 12 J. W. Newton, 1,820 feet south and 510 feet east NW cor. J. W. Newton 361-acre tract out of T. Mitchell Survey, No. 141. Wise & Jackson's No. 1 M. L. Smith, 1,320 feet north and 3,000 feet west SE cor. S. A. & M. G. Survey, No. 1, A-849. Advance Oil Co.'s No. 1 Sim Whitted, 450 feet SE of NW line and 150 feet NE of SW line of Sim Whitted 80-acre tract out of Charles L. Chunys Survey.

Concho County

Gene Mays' No. 1 Hartgrove, 330 feet north and east of SW cor. Mrs. A. Schmids Survey, No. 312. The Exploration Co.'s No. 1 Hartgrove, 1,000 feet south of NW cor. and 660 feet east of west line of J. Schouch Survey, No. 240.

Reagan County

Texon Oil & Land Co.'s No. 7-A University, Group 1, 2,360 feet south and 550 feet east of NW cor. Section 36, Block 9, University Land; No. 8-A University Group 1, 1,680 feet south and 850 feet east of NW cor. Section 36, Block 9, University Land; No. 9-A University, Group 1, 1,485 feet south and 990 feet east NW cor. Section 36, Block 9, University Land; No. 10-A University, Group 1, 2,130 feet south and 907 feet east of NW cor. Section 36, Block 9, University Land.

Upton County

Dixie Oil Co.'s No. 5 E. S. Hughes, 160 feet west of east line and 160 feet NE SW line of west 700 acres of William Teer Survey, No. 4, A-806. Johnson & McCamey's No. 1 Milton Shirk, 2,310 feet north and west SE cor. Section 35, Block 1, M. K. & T. Survey. Marland Oil Co.'s No. 21 A. S. Burleson, 330 feet south and 1,943 feet east NW cor. of 480-acre lease out of Thomas C. Jones Survey, No. 100, A-746; No. 22 A. S. Burleson, 330 feet south and 2,603 feet east of NW cor. 480-acre lease out of Thomas C. Jones Survey No. 100, A-746; No. 3 A. S. Burleson, 990 feet SE of NW line and 330 feet SW of NE line 160-acre lease out of W. G. Sealess Survey, No. 4, A-1,167; No. 13 Sanger Brothers, 990 feet SE of NE cor. of Mrs. E. C. Groome Survey, No. 8, A-790, and 330 feet NE of SW line of J. H. King Survey, No. 1, A-1,033, and located in J. H. King Survey. Marland Oil Co. and Texon Oil & Land Co.'s No. 1 M. M. Halff, 1,320 feet north and west of SE cor. Section 62, T. C. R. R. Survey.

SOUTHWEST WILDCATS

(Continued from Page 42)

an important gas showing at a little below 3,000 feet. The core showed a sand that looked good for a big gas well and casing was ordered for a test. Subsequently on advice of W. L. Richards, geologist, that oil production was likely at a little greater depth the setting of casing was postponed and drilling and coring is continuing, with improvement in the appearance of the sand. Total depth last report was 3,135 feet and the hole then was 20 feet into the sand. No. 1 Jones was drilled with cable tools to a total depth of 3,008 feet and it is about 400 feet east of No. 2. It was drilled with cable tools and drilling was in progress for three years or more and it had some showings of varying value with a good showing near the bottom which led to putting in a rotary rig to drill No. 2. It is many miles away from any production.

Webb County Wildcats

W. O. Wheatley and associates have spudded in No. 1 Reiser in Block 7 of Survey 1618 in the old Reiser gas field in Webb County, 27 miles east of Laredo. The location is 150 feet from the north line and 300 from the west line of the block. Hadley-Marland's No. 1 de Spain, Section 49, 4 miles northeast of the Carolina-Texas Field, is drilling at 1,200 feet. O. W. Killam's No. 1 Driver, Survey 52, 3 miles west of Carolina-Texas, is drilling at 2,978 feet. C. O. Maddox and E. L. Smith Oil Co.'s No. 1 Laurel in the center of Survey 333, 4 miles southwest of Carolina-Texas, is shut down at 200 feet waiting for water. National Refining Co.'s No. 2 Benavides in the northeast corner of Survey 700, 4 miles southeast of Carolina-Texas, is coring at 2,435 feet. Creswell and Fallin have taken over the Ritchison test on the Billings land in Block 1 of Section 71, located 12 miles northeast of Carolina-Texas, standing at 2,503 feet and preparing to deepen. Magnolia Petroleum Co.'s No. 1 Neal in Block 12 of Section 132, 3 miles southwest of Bruni, is drilling at 2,305 feet. Magnolia has erected a derrick on Survey 611, 2 miles southwest of the Neal test. Neal-Ramsland's No. 1 Lopez in Survey 309, between the old Mirando Valley Pool and the Bruni tract extension, with a total depth of 2,750 feet is underreaming at 2,500 feet with intention to test at 2,750 feet.

Duval County

Humble Oil & Refining Co.'s No. 6 Walsh in Duval County at Noleda as mentioned is testing a sand at 3,594 feet with the hole nearly full of oil. Humble's No. 1 Becher, 300 feet south of the old Empire Gas & Fuel Co.'s No. 1 Becher, is drilling at 597 feet. The Empire well had quite a showing of oil. Location is a mile west of the Humble's No. 4 Walsh that came in an oil well last December. Magnolia Petroleum Co.'s No. 1 Speer is drilling at 3,985 feet. It is a half mile northwest of No. 4 Walsh. Humble's No. 4 Schallert is drilling at 1,794 feet and with a showing of oil in Survey 255, several miles northwest of Noleda. Simms' No. 1 Schallert in Survey 241, is drilling at 3,758 feet. It tested salt water at 2,618 feet.

Humble Oil & Refining Co. and Reiter-Foster Oil Corp. have made two locations on the 24,000-acre block of leases acquired from Kohler, several miles north of the Cole gas field in Duval County and due east of the Carolina-Texas Field in Webb. One location is in Survey 406 and is 660 feet from the south and east lines and the other is in survey 168 and is 1,320 feet from the south and east lines. Humble owns a three-fourths and Reiter-Foster one-fourth interest. Humble will drill the wells. George M. Ball's No. 1 Roach is drilling at approximately 2,900 feet in Survey 463, 3 miles east of the Cole Field. Simms' No. 2 Dinn, 5 miles north of the Cole Field in Duval, is drilling at 2,300 feet. It is in Survey 62 and has passed up the sand depth that produced a small gas well in No. 1 Dinn. Humble Oil & Refining Co.'s No. 1 Dowdy (fee) in northern Duval County, tested salt water at 2,353 feet and is now drilling at 2,373 feet. Houston Oil Co.-J. T. Graham are waiting to test at 2,449 feet in No. 1 Beall in northeastern Duval County.

Jim Hogg County

Moody Oil Corp.'s No. 1 Palacious in Block 13 of Survey 287, in Jim Hogg

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August 10th, 1926.	Central Tube Company	$252,296.63	

Per attached statement, for July shipments.

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TAUBMAN SUPPLY CORPORATION

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CHECK No. 7626

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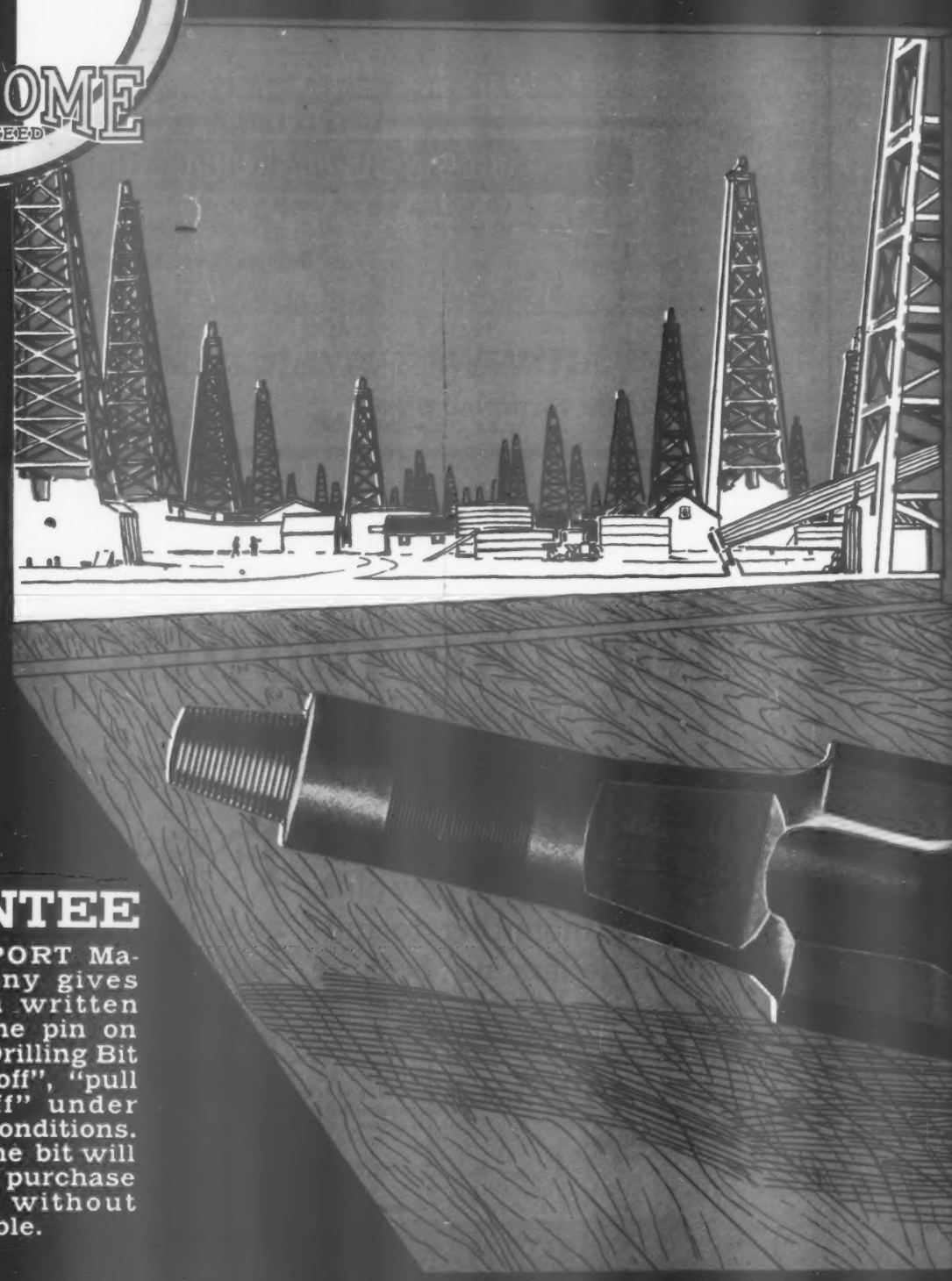

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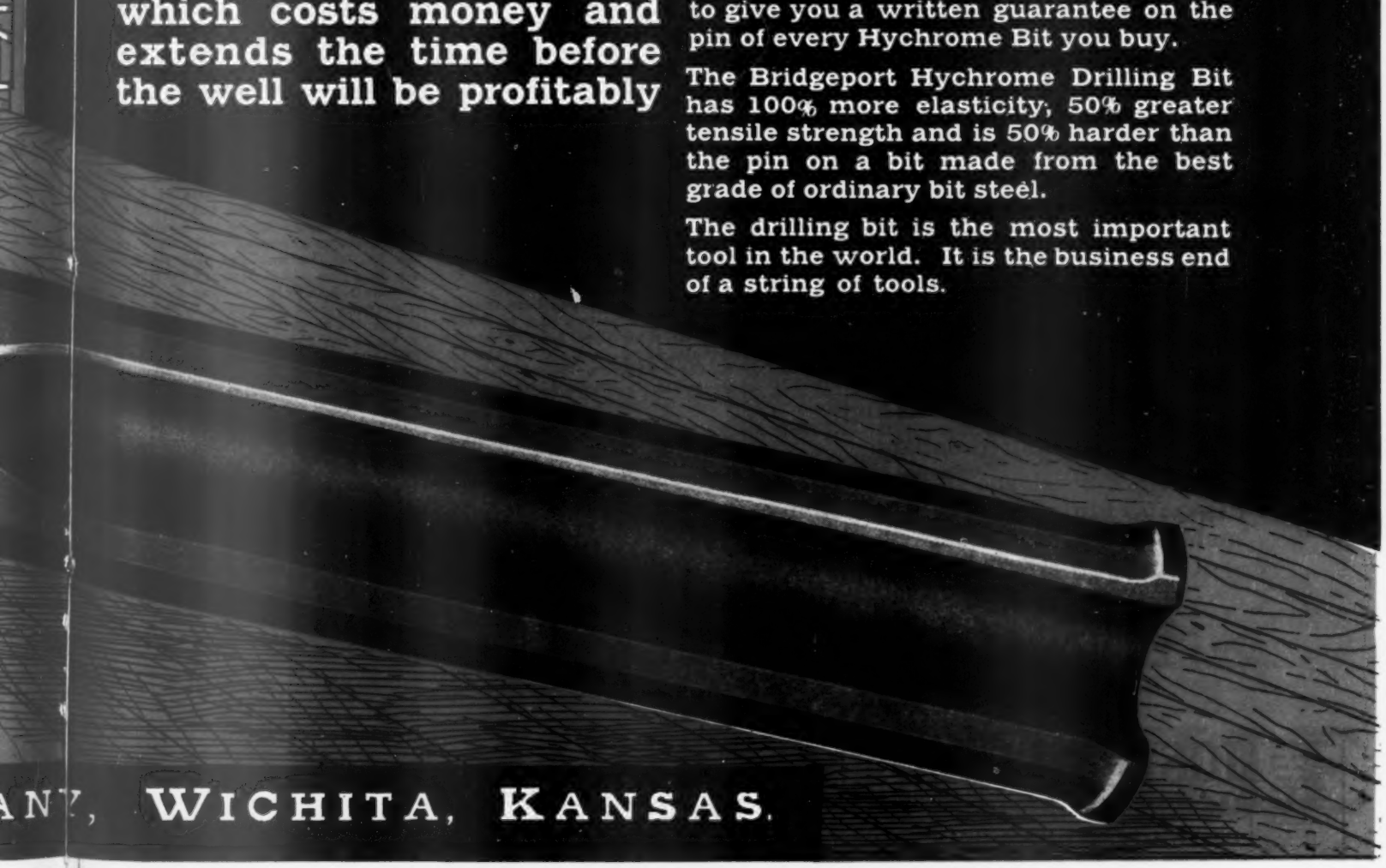

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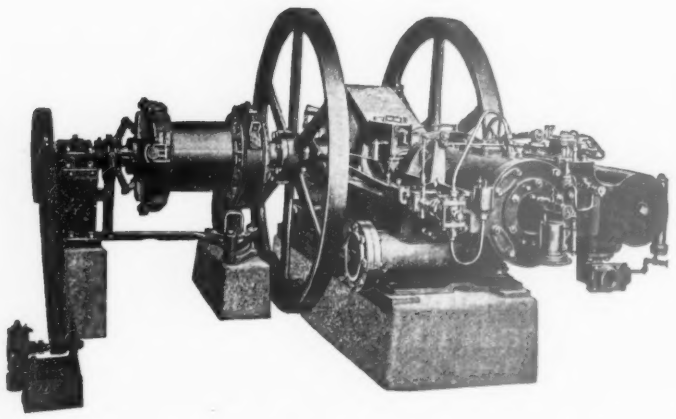

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County over a mile east of the Randado Field, is drilling at 1,620 feet, having passed the horizon at around 1,300 feet and less where production is obtained in Randado. Hazlitt-Simmons' No. 1 Schroeder is standing at 100 feet in Block 10 of Survey 16. Hoad and others are drilling at 500 feet in No. 1 Palacious in Survey 247. National Oil Co. is drilling in rock at 800 feet in Survey 23 of the Allen ranch each of Randado. O'Byrne and others are drilling at 1,000 feet in No. 1 Palacious in Block 40 of Survey 230.

Zapata County

E. K. Bateman has begun drilling on No. 1 Garcia in Block 7 of Survey 617 in Zapata County, taking over an old test at 2,000 feet which will be deepened to around 3,000 feet. The well is approximately in the center of the county. Benedum & Trees are drilling at 2,176 feet in No. 1 Benavides in Block 33 of the Villa Grant. Magnolia Petroleum Co. is drilling at 1,675 feet in No. 1 Cuellar in Survey 278. The Texas Company has spudded in No. 3 Jennings, which will be the third deep test in the old Jennings gas field and will probably go much deeper than the first two.

Atascosa County

Plateau Oil Co. has abandoned its No. 1 Tomlin in the northwestern corner of Atascosa County, 2 miles west of Anchorage at 3,040 feet. It had a little porous formation in the lower part of the hole but not important enough it was thought to warrant a test. W. G. French at Lemmberg in the northeastern part of the county is this week moving in the last of the material necessary for starting No. 1 Jaksik.

Bexar County

I. L. Dingman has spudded in No. 1 Joseph Przybyszewskl, a little north of the town of St. Hedwig in the eastern part of Bexar County and a little south of the recent test drilled there by the Marland Oil Co. on the Mihalski lease. The Dingman test will go to the chalk at least and may continues to the Edwards.

Bastrop County

Fred Adams has abandoned at 2,487 feet his test in the southern part of Bastrop County on the Holder (Calloway) lease. It topped the Edwards at 2,430 feet and was dry.

Bee County

W. G. Clark has abandoned his No. 2 Scott on a 9,000-acre block of leases 9 miles north of Beeville in Bee County and is moving the rig to the western part of Bee County on a block of leases east of the Houston Oil Co.'s gas field on the Cartwright land in Bee County.

Blanco County

G. L. Jones and others have spudded in a test in the eastern part of Blanco County in a territory bounded by the Pedernales River on the south and Cypress Creek on the north and about 1½ miles up the Pedernales River from the point where Cypress Creek flows into it.

Brooks County

Ballard & Underwood's No. 1 Lasater in the northwestern part of Brooks County has the drill stem stuck at 2,212 feet.

Caldwell County

Reiter-Foster are preparing to spud in No. 1 Riddle in Caldwell County south of Dale where several interesting tests have been drilled on a structure.

Gonzales County

Bristol Oil & Gas Co. is drilling at approximately 400 feet in No. 1 R. M. Denman in northwestern Gonzales County at Ottine.

Guadalupe County

J. M. Davis in western Guadalupe County south of New Berlin is drilling in rock at 319 feet in No. 2 Rosenbrock on the Payne & Bond block of leases and expecting to pick up serpentine at 1,200 to 1,300 feet. Davis' No. 1 Pooley in northern Guadalupe County near Staples went out of the Austin chalk at 1,373 feet with 165 feet of chalk and is out of the Eagle Ford and into a freak sand showing oil at 1,377 feet.

Hays County

J. E. Rodgers and associates have resumed drilling in No. 1 Hohenberg a little east of San Marcos in Hays County at 350 feet. The well was started a year ago.

Karnes County

Earl B. Reynolds has set 12½-inch surface casing in his No. 1 Butler in Karnes County between Kenedy and Runge and has resumed drilling.

Kimble County

Dixie Oil Co. is digging slushpit and moving in material for a test in Kimble County 16 miles northwest of Junction on the E. O. Bode farm. Sun, Humble and Texas have also been blocking leases in that territory. It is on the J. S. Patterson Survey No. 80.

LaSalle County

DeLange, Eiser Development Co.'s No. 1 Dobie (fee) in the southeastern corner of LaSalle County is drilling at a little below 1,100 feet.

Medina County

Western Gas & Fuel Co., a subsidiary of the Southern Gas Co., of San Antonio, has spudded in No. 1 Chandler in Medina County, south of the Henderson & Holden gas wells and is drilling at 332 feet and has made a location northeast of the gas wells on the Adams tract. Western has contracted to take the gas from the Henderson & Holden wells and will pipe it to Hondo. Sprague and others tested salt water in No. 1 Redus in Survey 92 east of the Henderson & Holden gas wells more than a mile and has plugged back from 1,100 feet and will try and shut out the salt water. It had a showing of oil before the salt water developed. Witherspoon is rigging up on his No. 1 Adams and is about ready to spud in.

Pat Armstrong is moving a rig from McMullen County to drill No. 1 Lacey in Medina County northwest of Hondo. No. 1 King in the same territory, on a block of leases secured by Pat Armstrong, is being drilled by the Winona Oil Co. and is now down 247 feet. Schermerhorn Oil Co.'s No. 3 Irrigation Co. land (heretofore carried as No. 2) was dry at 1,604 feet and is plugging back to be completed at about 800 feet where No. 1 made a small well. The well is southeast of

(Continued on Page 129)

CALIFORNIA FIELDS

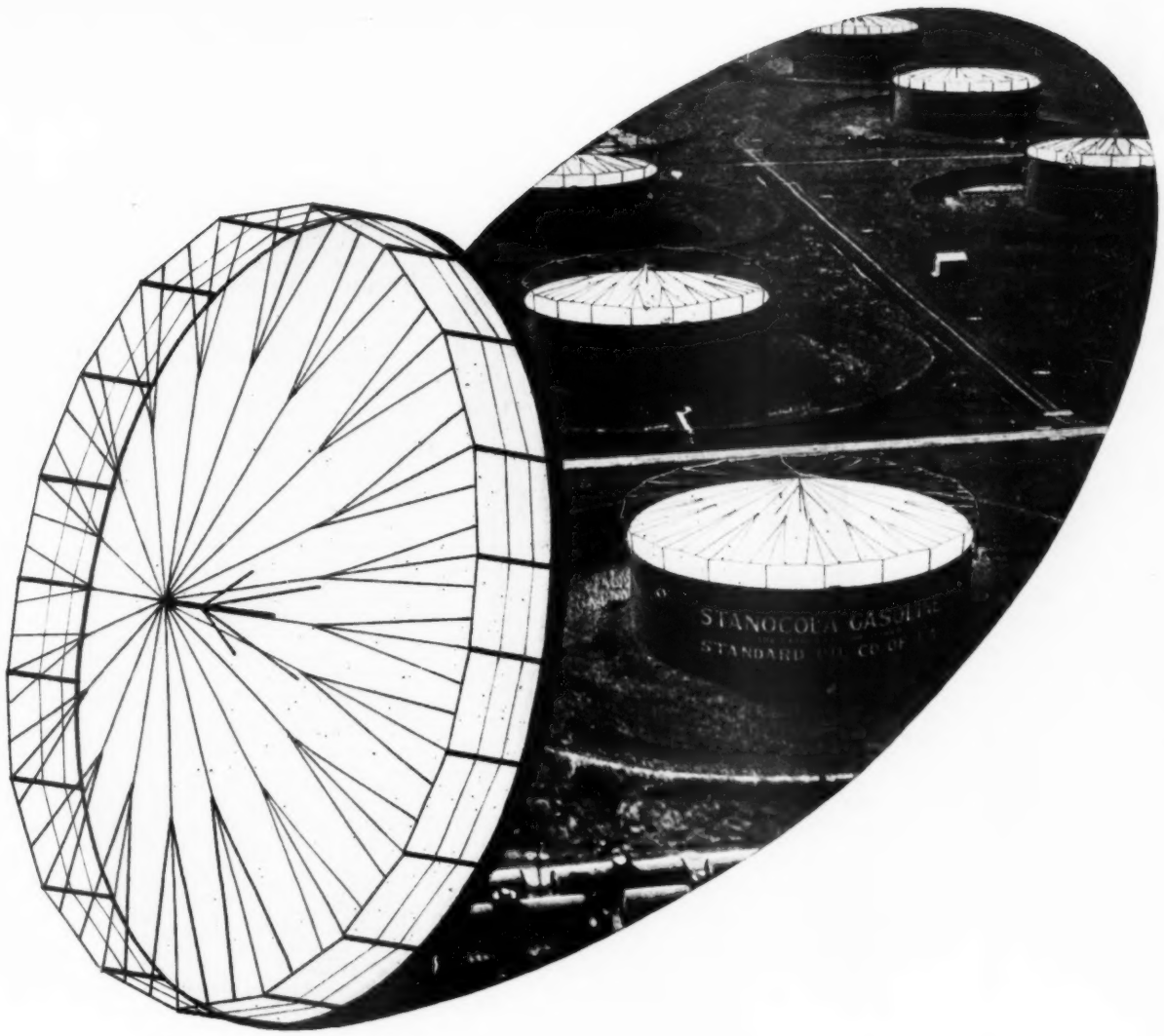
(Continued from Page 50)

resumed its record of adding a new well each week by finishing No. 73 Del Amo at 3,434 feet, the initial production in this instance being 135 bbls. of clean 21.1 gravity oil. No. 49 Del Amo at 2,535 feet, No. 57 at 2,890 feet and No. 79 at 2,770 feet should all be on production within the next several weeks. The rig for No. 59 Del Amo has been standing for some time and the company will spud in this hole within the next few days. Two wells were abandoned in this field during the week. George F. Getty filing a notice on No. 12 Torrance and the Standard following a similar procedure with No. 4 Interstate, a good well upon completion but which has since dwindled down to such a point that it has ceased to be a commercial producer.

Santa Fe Springs

With the spudding in of No. 24 Santa Fe, the General Petroleum now has two drillers under way in the Santa Fe Springs Field and, since two more wells are being rigged up, it begins to look as though the company intends to run four strings of tools simultaneously in this area. The Standard has not yet finished rigging up its new well, No. 19 South Whittier Community, but all preliminary work will be completed within the next few days and spud made shortly thereafter. The California Petroleum has just recompleted its No. 2-B Wickman at 3,903 feet and it is flowing 310 bbls. of 29.6 gravity oil daily.

The Chanslor-Canfield Midway Oil Co.'s No. 96 Olinda has shattered all existing records for depth with either cable or rotary tools but, notwithstanding the establishing of this record, the hole will be pushed ahead in the hope of reaching the 8,000-foot level. This well has been unusually free from mechanical trouble and will probably reach the projected depth within the next week or ten days. The General Petroleum brought in a splendid well at Richfield, its No. 6 Stern



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being one of the best producers finished in that area in some time. This well, which was drilled to 4,590 feet and finished with a 5⅞-inch oil string landed 22 feet off bottom, tanked 2,550 bbls. during the initial 24-hour test, the oil being exceptionally clean and testing 24.3 degrees. The completion of this well leaves the General Petroleum with two potential producers on the Tonner lease at Fullerton, another on the Thompson lease at Richfield and a rig going up for another well, No. 4 Hugo in the latter area.

Ventura Avenue

The development program, which is the cumulative work of the individual operators in the Ventura Avenue Field during the past several months, is beginning to bear fruit and the completion of No. 3 A Barnard by the General Petroleum marks the third consecutive week that a new well has been finished in this district. The Associated started the ball rolling with No. 18 Lloyd, a 1,390-bbl. well, which the Shell topped a week later with No. 22 Gosnell making 5,416 bbls. daily from 6,125 feet. The latter producer was, by the way, the second largest well finished in the district to date and holds the record as far as depth is concerned, the hole being some 10 or 12 feet deeper stratigraphically.

The General Petroleum's No. 3-A Barnard just brought in made 2,515 bbls. of clean 30.2 gravity oil from 5,825 feet during the initial 24-hour period. Considerable difficulty was experienced prior to completion and it is quite possible that the output may register an increase after the well has cleaned itself out rather than drop off as would naturally be expected. The same company's No. 9 Notten at 5,791 feet is being packed off with hematite and, although this well which is being deepened and is not scheduled for completion before the end of the month, it may come into production previous to that time. The General Petroleum is concentrating its drilling activities on the Barnard lease at present where it has No. 1-A at 2,910 feet, No. 2 at 4,020 feet, No. 7 at 3,429 feet and rigs standing for Nos. 5-A and 8.

The Associated is stepping along nicely and, judging by present depths, should add three wells to its list of producers within the next 30 days. These are Nos. 17, 32 and 33 on the Lloyd lease at 5,201 feet, 4,900 feet and 5,622 feet, respectively. The other potential producers on this property at present are No. 2-A at 3,225 feet, No. 5 at 4,696 feet, No. 38 at 3,827 feet and No. 5 at 4,047 feet. Rigs are standing for Nos. 19, 28 and 39. The company also has a prospective producer in No. 5 Hartman now at 3,230 feet, No. 1 McGonigle at 4,330 feet and No. 1 Ventura Land & Water which is being temporarily delayed with mechanical trouble at 3,340 feet.

The Shell has, perhaps, the largest number of prospective completions and, unless mechanical trouble develops, should finish 10 wells on the Edison, Gosnell and Taylor leases during the next few months. No. 1 Willette of the Petroleum Securities now at 5,030 feet and No. 1 Orton at 3,694 feet may also possibly come into production in the near future. G. J. Magenheimer's No. 1 Hartman, which is held up with a fishing job at 3,737 feet and the Bolsa Chica's No. 2 Hartman, a recent spud, will probably not be finished until around the first of the year. The Ventura Associated has acquired a one-acre location from the Ventura Citrus Association and will drill up this site as soon as the necessary finances are available.

Midway-Sunset

The Standard experienced an unusually busy week in the Midway-Sunset area as a result of the completion of three new wells, the largest of which was No. 93 Pacific in Section 30-12-23. This well, finished at 3,620 feet, came in flowing 842 bbls. of 25.5 gravity oil but settled the following day to 510 bbls. Nos. 5 and 7 in Section 29-31-23, on former Pacific Oil property, were good for 140 bbls. and 60 bbls., respectively. The former is pumping from 4,515 feet, while the latter was put on the beam at 4,381 feet. The Bankline Oil Co.'s No. 10 in Section 32-12-23, resulted in a 45-bbl. pumper from 4,136 feet, the oil testing 16.1 degrees and showing a cut of 5 per cent. The Washington Petroleum Corp. has consummated a deal with Keefe & Risden, southern California operators, and the latter will undertake development of the former's property at McKittrick. This deal will undoubtedly prove mutually profitable as the property should prove productive with proper handling.

Operators have been rather slow in getting under way at Poso Creek, due principally to the difficulty in securing water, but the Shell, Barnsdall, General Petroleum, California Petroleum, Union, Superior and several others all made good progress during the past week or ten days. Several water wells have been finished in this locality recently and from now on work should become rather general instead of being restricted to a few. Development work in the Wheeler Ridge Field has been going along at a slow pace but every once in a while a new producer is listed. The Standard added a new completion this week in Section 27-11-20, No. 25, on this property, being a 125-bbl. pumper from 2,575 feet.

Southern California Wildcats

With the Marland Oil Co.'s No. 2 Bixby removed from the wildcat report, due to the discovery of a productive horizon at Seal Beach, operators will probably center their attention on No. 1 Sesnon of the Petroleum Securities in the San Fernando Valley and the Bolsa Chica's test in the Kettleman Hills in Kings County. The test of the Petroleum Securities, near Zelzah, picked up a slight showing of oil and gas the other day around 3,200 feet and, although it was only of a minor character, it was, nevertheless, encouraging especially in view of the fact that very few wildcats which do not encounter surface showings ever come into production. No. 1 Sesnon is, of course, a rank wildcat but this well, together with the Standard's No. 1 University, several miles away at 3,549 feet, might bear watching. The Union's No. 1 Howland in the El Segundo quadrangle might also prove interesting in the near future, although up to the present time it has not shown the least encouragement.

In addition to these wells just mentioned, there are several others just getting under way which might change the production situation a little later in the year. Among the latter are the Marine's No. 1 Strong and the Bellflower Oil Co.'s No. 1 Blythe at Bellflower. The Associated's No. 1 Cypress at Inglewood, the Barnsdall's No. 1 Merlo at Puente and Featherstone & Preston's No. 1 Blinn at Clearwater might also prove interesting within the next 60 days. The Milham Exploration Co.'s second Playa del Rey wildcat at 5,972 feet and George W. Johnson's No. 1 Martin at Manhattan look like early abandonments.

Northern California Wildcats

No single wildcat north of the Tehachapi showed any favorable symptoms during the past week, although the Marland's No. 1 Williams, which is more in the nature of a deep test at Cat Canyon than a wildcat, is being prepared for a test at 4,286 feet. It will be put on a compressor and may possibly result in small production, although the outlook is not any too favorable due to the rather heavy grade of oil which has been cored. The Union has a rig up for its No. 2 Theta, northwest of the Belridge Field in Kern County, and this second survey hole should be spudded in within the next week or ten days.

Spud was made in three new wildcats during the week, two in Ventura County and the third in Tulare County. The latter was the Federal Exploration Co.'s test in Section 15-22-24 which had reached a depth of 619 feet at the close of the period. The two new wells started in Ventura County were No. 1 Canet of the Rio Grande in Section 9-3-23, and the Sentinel's No. 1 Tejon in Section 5-5-17. The former is temporarily held up with mechanical trouble at 835 feet but the latter is rotating ahead at 555 feet. The Marland's No. 1 Lazard in Kern County and the Shell's No. 1 Berlywood at Moorpark showed no change in status and both look rather discouraging.

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Production Possibilities at Seal Beach

Development There Will Be Conservative But Will Help Maintain Output of State Above 600,000-Bbl. Mark

By L. P. Stockman

LOS ANGELES, Calif., Aug. 14.—If the discovery well at Seal Beach wh'ch was finished last week is any criterion of the potentiality of this new field, the Marland Oil Co. will undoubtedly become a very important factor in the petroleum industry on the Pacific Coast, not only from a production standpoint but from a marketing end also, if the company decides to push 'ts advantage along this line. Before calling attention to the importance of this new discovery it might not be amiss to note the performance of the well which was responsible for the opening up of California's latest and most interesting field. The Marland is offic'ally listing No. 2 Bixby for completion as a 1,252-bbl. flowing well from 4,427 feet, the oil testing 23.8 degrees and showing a cut of .1 per per cent. That the well is holding up exceptionally well is evidenced by the fact that the present production is only 10 bbls. less than the initial flow. The successive daily production record to date 'is 1,252 bbls., 1,200 bbls., 1,327 bbls., 1,369 bbls., 1,238 bbls. and 1,241 bbls., the gravity of the oil remaining unchanged but the pressure building up to 660 pounds during the period since completion.

The Marland deserves credit for its work, particularly at Seal Beach, as this area had come into disfavor following the drill'ng of several dusters on all sides of the company's present holdings. The Marland's geological department, under the guidance of Roy Collom, Carl Beal, W. W. Copp and others, did not share the prevailing opinion that further work was inadvisable because the Associated appeared to have the cream of the acreage, but on the contrary they immediately leased the Bixby property as soon as it had been given up by the Shell following the drill'ng of a deep dry hole in the extreme southern part of the lease. The Shell was one of the first to realize the possibilities of what is now the Seal Beach Field, although other operators have been unsuccessfully prospecting in the general locality for a number of years. Had this company located its No. 1 Bixby 500 feet farther north or west it would have picked up the Marland sand and the well would have been rated as a discovery instead of going 'nto history as a duster. The Shell and practically every other operator was working on the assumption that the productive area would lie east of this lease and extend across the Bryant and Hellman properties, instead of running westward, as has since been proven to be the case. This assumption is not surprising in view of the fact that the Shell had developed edge production on the Bixby property to the west had been of no avail.

Many Previous Failures

Altogether there were 12 tests drilled at Seal Beach previous to the Marland's No. 2 Bixby, which opened up this area for the drill. The Standard has a 5,760-foot duster on the Alam'tos lease west of the field and two more north of the district. These were No. 1 Bixby, abandoned at 5,526 feet, and No. 2 Bixby, which was stopped at 5,610 feet. The Shell drilled one duster on the Bixby lease in the eastern part of the field to 6,142 feet and four dry holes on the Bryant property adjoining this acreage on the east. No. 1 was abandoned at 4,620 feet, No. 2 at 5,042 feet, No. 3 at 7,221 feet and No. 4 at 4,897 feet. The Associated's No. 1 Hellman was suspended at 5,742 feet, while the Seal Beach Oil Co. quit at 5,184 feet, and H. R. Dabney at 3,150 feet. In addition to the above, it will be recalled that the Marland's first hole on the B'xby lease was abandoned because of water trouble after flowing for a few days at the rate of 500 bbls. The cost of these 12 wildcats must have been pretty close to $3,000,000.

The Marland and Standard are the only two companies at the present time holding acreage within what is believed to be the outer limits of the field, although there still are two pieces of acreage available to anyone who wishes to pay the cash bonus asked. The land in question, one parcel lying at the eastern edge and the other in the western part of the d'strict, will undoubtedly result in some stiff bidding, notwithstanding the fact that the Shell and Pan American once had them under lease only to turn them loose.

Field Quite Unusual

The new Seal Beach Field is perhaps one of the most unusual areas ever opened up for development in California because of the fact that part of the potential productive acreage l'es within restricted territory, which will probably not be available for work, while another portion consists of a municipal park, the deed to which prohibits its utilization for anyth'ng except amusement purposes. These restrictions make the Marland's holdings the most valuable in the entire field as the company will have the benefit of this large drainage area while its development program can be carried into effect as desired, since there will be no compulsory offsets required along this side of the field. The Standard's lease on the Alamitos Land & Water property, wh'ch extends in a northerly and southerly direction, practically cuts the district in two, and although the company is assured of substantial production, the Marland is in a very advantageous position since it controls acreage on both sides and will be in a pos'tion to demand concessions with respect to drilling if it should prove advisable to do so.

When the Marland definitely proved up the Seal Beach area, independent operators immed'ately resumed their leasing activities in the town lot section west and north of the field in the hope that drilling restrictions might eventually be lifted, such as happened at Huntington. It is interesting to note in this connection that the Long Beach city coune'l yesterday granted the Marland permission to drill four wells on its Selover and McGrath lease of 115 acres just outside the zoned area and turned down the request of a Mrs. Virginia Gundr'y for permission to erect a derrick inside the restricted area several blocks away. The Selover and McGrath property is perhaps the Marland's best bet, as it parallels Recreat'on Park and will drain both this acreage and the restricted town lot section still farther south.

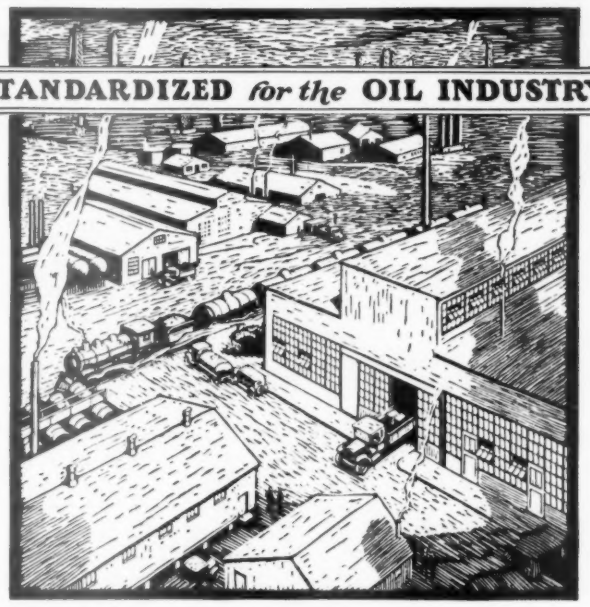
(Continued on Page 136)

View of Seal Beach, Calif., and surrounding territory.

TRUSCON COPPER STEEL BUILDINGS

TRUSCON STEEL CO.

STANDARDIZED *for the* OIL INDUSTRY



Permanent Features

1. Lowest Cost of any Permanent Building.
2. Minimum Cost of Upkeep.
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4. Safe from Fire, Lightning, Rust.
5. Designed specially to meet Your Needs.
6. Delivery When You Want It.
7. Erection in half the time usually required for permanent construction.
8. One Source for your Entire Building.
9. No delays—no extras—original estimate covers all.

Roofs of Security

Truscon Ferrodeck or I-Plate roofs are two types of steel-deck roof constructions that answer every need for straight-away roofs on all kinds of buildings. Light weight, durable, fire and rust resistant, insulated to any degree.

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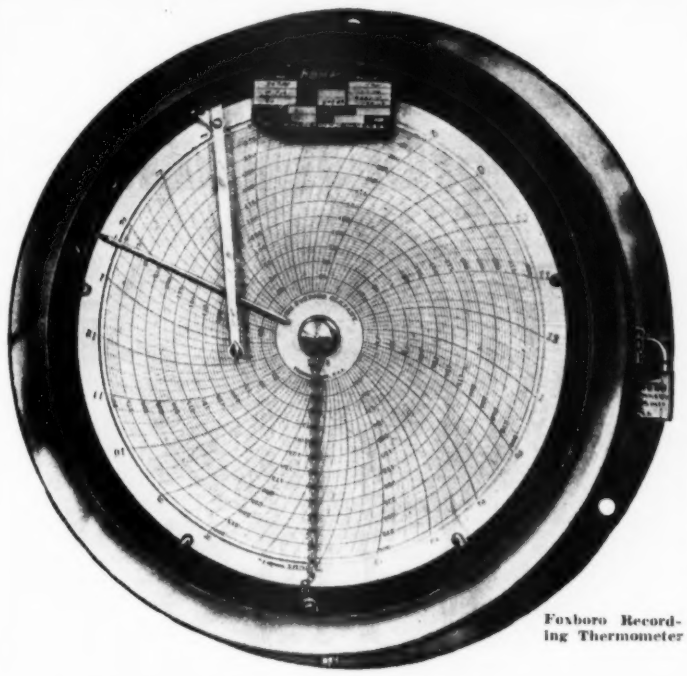

Foxboro Recording Thermometer

Instrument Accuracy Demands Fixed Centers of Rotation

Accuracy in a recording instrument depends upon the ability of the pen to follow the graduated scale and the time arc of the chart.

To accomplish this there must be a definite and fixed relationship between the center of rotation of the pen arm and of the chart itself.

The motion of the Foxboro actuating movement is transmitted to a shaft which forms a definite and fixed axis of rotation for the pen arm. No other actuating movement has been developed which produces equally satisfactory results.

This construction, also, eliminates vibration. It makes possible a simple micrometer adjustment that does not alter the effective length of the pen arm.

Axes of pen arm and chart rotation are located by jig on the same base. Alignment is simple and positive. The relationship is always the same. All parts are interchangeable.

The controlled motion of the pen arm, coupled with the fact that all Foxboro actuating movements are guaranteed permanent in calibration, enables Foxboro Instruments to maintain an accuracy to within less than 1 per cent of total scale range.

Foxboro Instruments give you the utmost in instrument accuracy and dependability.

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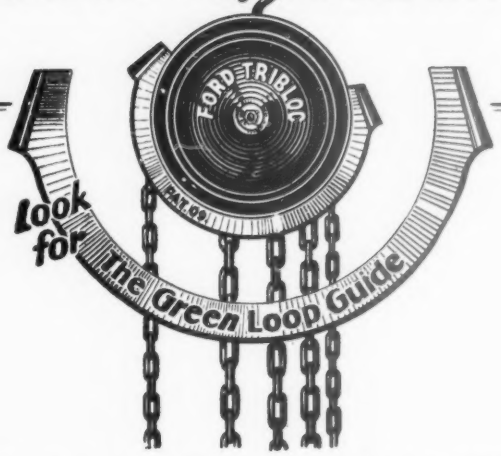
Tribloc Chain Hoists



Safeguard Profits This Way

Get equipment that the inexperienced workman can effectively operate and the cost of load lifting quickly drops.

Triblocs are easy to operate, simply constructed, sturdy and with strength to survive the gruelling tests to which chain hoists are sometimes subjected.

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Philadelphia, Pa.

We also manufacture "THE MOTORBLOC"—
an electrically driven chain hoist.

The One Sure Way To Stop Joint Leaks

Makes joints 100% tight — absolutely leakproof where all other methods fail.

Throughout the oil industry this non-corrosive, greaseless compound is being used to end all trouble from leaky joints. Wherever used it meets with overwhelming endorsement. Users claim it is invaluable around the cracking plant, where it is most difficult to keep hot oil under pressure from leaking and causing excessive smoke.

Due to its scientific preparation and graphite base, this paste is oil, acid and gasoline proof. It is soluble only in water. Of paste-like consistency, it is easily spread on pipe joints, fittings, flanges, flange unions, and every place where a leakproof joint is desired. It expands under heat, filling every crack and crevice—then carbonizes. It renders joints not only leakproof but easy to take apart if desired. Also proven invaluable for use on manhead gaskets on storage tanks, and for painting seams after making repairs to stills. Often replaces gaskets on rough joints. Positively seals all ground joints. Key Graphite Paste was originally designed to correct the oil leakage around pressure stills, and for this purpose has no equal.

Key Graphite Paste is put up in barrels, half barrels, 60-lb. and 30-lb. drums, and 1, 3, 5 and 10-lb. cans.

KEY BOILER EQUIPMENT COMPANY
27th and McCasland
East St. Louis, Ill.

KEY Graphite Paste

SAN JUAN FIELD

(Continued from Page 50)

3 Bishop, Section 22-29-11, brought in the best well that has yet been drilled in the Bloomfield district the latter part of last week when he topped the producing sand at a depth of 653 feet. He drilled on down to a depth of 699 feet, the last 12 feet being in blue shale. Unlike most of the other wells in this district, there is no water to contend with in this well and it is good for 15 bbls. per day of crude that has about 82 per cent gasoline content. A peculiar geological fact is that this new well got production at a little over 650 feet, while the other wells in the district have run from 730 to 740 feet. Several geologists have held that the Bloomfield producing area was a terrace and not a structure and that the sands were lenticular and this last producer seems to sustain this theory. It was reported that the initial flow in this well was 15 bbls. in 14 hours but it has since settled down to a lower production.

The Union Oil & Mining Co., operating in the Blanco district, drilling in No. 2 Pine, near the center of the SE SW, Section 8-29-9, encountered a sand with a good showing of oil at 1450 feet. When the sand was struck and the showing of oil appeared the drilling was suspended to await the arrival of the principal owners who are in California. The sand encountered is the Farmington series and was productive in the Huntington Park well, which is located 1¼ miles northwest. It was the intention of this company to pass through the Farmington series and go on to the Picture Cliff when drilling was started, but this will depend on what the sand they have entered will show with further drilling.

The Congress Oil Co., operating in the Kutz, Canon district, drilling on No. 1 Garland, has received the casing they were awaiting and it is being trucked out to the well. As soon as it is on the ground and run drilling will be resumed. This well was closed down about two weeks ago because the gas pressure was so great that drilling could not be carried on successfully until it was shut off by running casing.

C. S. Ringle, drilling for Benedum & Trees in the Seven Lakes district, reports that he is underreaming and lowering 10-inch casing from 550 feet to the 1,000-foot level. He also reports that the well he is drilling for the Southwestern Development Co. on the Atteberry tract north of Aztec, Section 24-31-11, has reached a depth of 700 feet.

The Ross-Bloomfield Royalties Co., operating in the Bloomfield district, Section 11-29-11, has pierced the Picture Cliff sand without securing commercial production and has suspended operations. The well was about 2,153 feet deep when work was suspended.

The Portage Oil & Gas Syndicate, operating on the Glade structure, 6 miles northeast of Farmington, Section 24-30-13, is still shut down awaiting the arrival of a set of jacks.

The Continental-Santa Fe Cos., operating on the Rattlesnake structure, 30 miles west of Farmington, Section 2-29-19, drilling in No. 17, the deep test, has reached a depth of 3,190 feet and is still drilling. In No. 19 on this structure, Section 3-29-19, they have set the casing and are cementing in on top of the Dakota sand at a depth of 788 feet. The well will be drilled in as soon as the cement is set.

The Continental Oil Co., operating on the Table Mesa structure, 25 miles southwest of Farmington, Section 3-27-17, drilling on No. 8, has reached a depth of 700 feet. No. 9, on this structure, is setting casing and cementing at a depth of 1,335 feet, which is about 10 feet above the Dakota sand. As soon as the cement sets the well will be drilled in.

L. L. Sellers, of Wichita Falls, and N. H. Reed, of Amarillo, Texas, have arrived here and are preparing to start operations on the Little Shiprock and Tract D in the Ute Pasture, both of which were purchased at the recent Navajo lease sale.

MEXICAN FIELDS

(Continued from Page 44)

lilao, is in shale and shells at 1,100 feet. In the Panuco, its No. 24, Lot 1 Tanchicuin, is in shale at 475 feet; No. H-7 Etienne is shut down for orders at 1,750 feet, showing some oil, and it is moving material for No. 34 Barbarena. Mordelo Vincent's No. 39, Lot 14 W. Maguabes, is in gray shale at 1,115 feet. Tampascos Oil Co.'s No. 20 Robles cemented 8-inch casing in gray lime at 1,215 feet.

South Fields

There is but little activity to record in the south fields. Huasteca Petroleum Co.'s No. 73 Cerro Azul is in blue shale at 830 feet; No. 81 is in brown lime at 1,808 feet; No. 82 is in gray shale at 1,590 feet. Down in Tierra Blanca its No. 77 continues at 1,915 feet in gray and brown lime. Several tests are rigging. In Chapopote Nunez its No. 15 is in brown shale at 1,053 feet. Mexican Eagle Oil Co.'s No. 17 San Geronimo is in shale and shells at 1,165 feet; No. 49, Lot 111 Amatlan, has cemented 4¾-inch in gray shale at 1,802 feet; No. 2 Poza Rica is in sticky shale at 600 feet; No. 37 Furbero is in soft shale at 2,720 feet.

Northern Miscellany

In the several smaller pools of the northern fields consider the following: In Ebano, Mexican Petroleum Co.'s No. 47 Chijol cemented 10-inch in gray lime at 920 feet; No. 49 has done the same with 8-inch at 1,165 feet, same formation; No. 43 La Dicha is fishing in gray lime at 1,465 feet; No. 59-A is drilling in blue shale at 835 feet; No. 108 is in blue shale at 430 feet; No. 111 is in white lime at 2,060 feet; No. 2 Silva is in hard white lime at 2,140 feet; No. 9 Mendez cemented 8-inch in gray lime at 2,170 feet; No. 11, same, is in gray lime with a showing of oil at 2,000 feet; No. 102 Contesa is in gray lime at 2,130 feet; No. 103, same, is running 10-inch in gray lime and pink shale at 2,180 feet; No. 104, same, is spudding. Mexican Pete's No. 8 Ebano is moving in material, and its No. 9, same, is rigging. In the Caracol, where it has a drilling interest, it has two tests at a nominal depth.

In the interesting Los Esteros sector, of the state of Tamaulipas, American International Fuel Co.'s (through Mexican Gulf Oil Co.) No. 31 is a deep hole in hard gray lime at 3,020 feet; No. 32 is in white lime at 2,420 feet; No. 33 is in gray shale at 1,140 feet and No. 34 is running 8-inch in gray lime at 1,220 feet. It might be remarked, in passing, that these latter two tests are offsets to No. 30 that has been remarked before as the one wildcat of worth drilled to pay completion in Mexican fields in the past year or so. If these two tests drill into the pay new pipeline development and a more hectic activity should characterize the present, by comparison, lethargy that characterizes field operations at this time.

In the Corcovado, La Corona Petroleum Co.'s No. 25, Lot 6, is in gray lime at 1,710 feet with a showing of oil; No. 26, same, is rigging. In the Chapacao (Corcovado), Mexican Gulf Oil Co.'s No. 31-A is in gray lime at 1,680 feet, and No. 49 is rigging. Rich Mex Oil Co.'s No. 6, Lot D, is underreaming at 1,830 feet to carry down 8-inch; gray shale.

In the Topila sector, La Corona Petroleum Co.'s No. 21 is in the Tamasopa at 2,100 feet; Cochrane and others' No. 13, Lot 20 Pac. de Agua, is around 2,175 feet in gray lime. Cia. Pet. Financiera No. 4, Lot 14, is in hard gray shale at 1,210 feet. Globe Petroleum Co.'s No. 1, Lot 80 Quebrache (south of Topila) is rigging; and No. 9, same lot, is a derrick. The Texas Company's No. 1, Lot 19, Pac. de Agua, is rigged; waiting permit.

In Limon, Cia. Pet. Franco Espanola, (Marland), No. 33 A is rigging standard; No. 46-A is in gray lime at 1,285 feet; No. 60-A is in gray lime at 2,790 feet, a deep hole; No. 62 is in gray lime at 1,470 feet, and No. 64 is in a similar formation at 1,410 feet.

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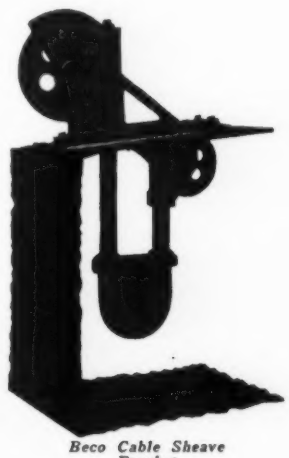

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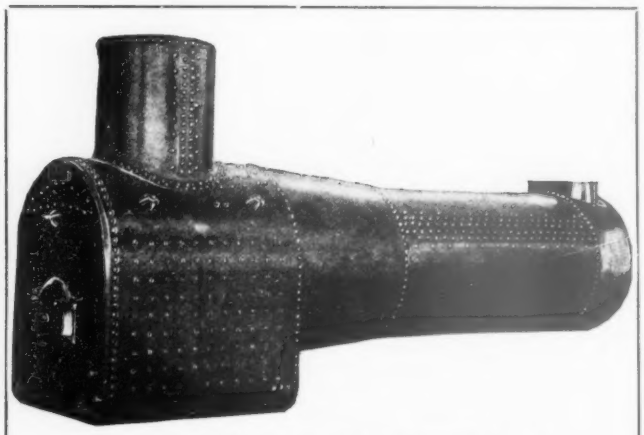

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All Leading Supply Houses Throughout the Eastern Fields handle

DONOVAN QUALITY PRODUCTS

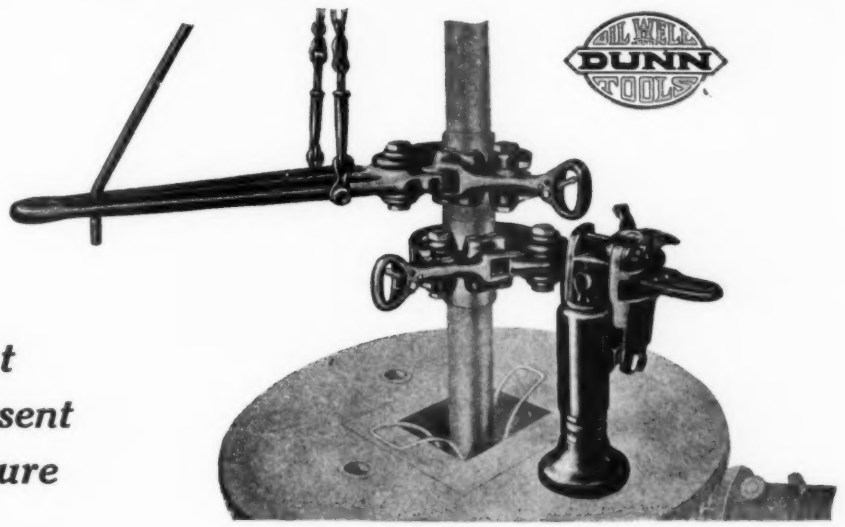
None Better

OKLAHOMA PRODUCTION DURING SECOND QUARTER

(Continued from Page 84)

Nowata Oil & Ref. Co., Tulsa	16,642
Number One Oil Co. (N. T. Gilbert and Jos. Glass, receivers, Tulsa	5,176
O	
Obins, W. G., and H. C. Weber, Bartlesville	8,376
Obins & Weber, Bartlesville	2,349
O'Brien, P. J., Tulsa	847
Octo Oil Co., Bartlesville	454
Offenbacher Petroleum Co., Tulsa	56
Oglesby, Robert, Tulsa	4,155
Ohio-Osage Oil Co., Tulsa	5,414
O'Hornett, C. J., Henryetta	950
Oil State Petroleum Co., Enid	14,432
Okeh Oil & Ref. Co., Tulsa	140
Okla-Penn Oil Co., Bartlesville	1,227
Oklarado Oil Co., Okmulgee	734
Oklausa Oil Co., Jackson, Tenn.	224
Oklavania Oil Co., Tulsa	35,994
Okliana Oil Co., Tulsa	468
Oko Oil & Gas Co., The, Lima, Ohio	1,914
Olean Petroleum Co., Tulsa	472
Oliphant Petroleum Co. (N. T. Gilbert and Jos. Glass, receivers), Tulsa	1,506
Omega Oil Corp., Shreveport, La.	581
Oneida Petroleum Co., Warren, Pa.	3,942
O'Connor, Dennis & Sara, Butler, Pa.	170
Okla.-Texas Refg. Co., (L. L. Massey, receiver), Grandfield	11,245
O'Neil Petroleum Co., Milwaukee, Wis.	35
Olsen, Mrs. A., Drumright	625
O'Reilly, J. T., & E. J., Tulsa	790
O'Rourke, Ed, estate, Tulsa	1,303
O'Rourke, E. W., Tulsa	1,303
O'Rourke, T. J., Tulsa	1,303
Osage Oil Corp., Tulsa	3,443
Osage Dev. Co., Bartlesville	8,125
Osage Prod. & Ref. Co., Tulsa	3,147
Oswego Petroleum Co. et al, Tulsa	1,286
Ottawa Oil Co., Wellsville, N. Y.	84
Overton, C. H., estate, Tulsa	715
Owens, D. R., Chandler	4,806
Owl Oil Co., Loco	17,163
P	
Page, Chas., trustee, Tulsa	6,799
Page, Chas., C. W. Kingsbury and George Kinney, Sand Springs	1,544
Page, Chas., C. W. Kingsbury, Geo. Kinney and C. F. Tingley, Sand Springs	69
Page, Bros. Oil Co., Tulsa	7,991
Painter, J. W., Nowata	278
Painter, Stager & Higgins, Nowata	48
Panama Oil & Gas Co., Holdenville	353
Panhandle Refining Co., Wichita Falls, Tex.	1,210
Panther Oil & Dev. Co., Bartlesville	169
Papoose Oil Co., Tulsa	77,582
Paraffine Oil Co., The, Houston, Tex.	10,907
Paragon Oil Co., Tulsa	5,300
Parker, D. F., trustee, Okmulgee	569
Parmenter, W. L., No. 2, Lima, Ohio	414
Parrish Oil Co. and Reed, Nowata	2,410
Parsons, E. E., Okemah	311
Patsy Oil & Gas Co., Ardmore	1,923
Patterson, M. R., Jamestown, N. Y.	4,917
Patterson & Swaim, Bartlesville	234
Pattrell, E., Bartlesville	187
Pauline Oil & Gas Co., The, Oklahoma City	7,152
Pawnee-Osage Oil & Gas Co., Tulsa	2,442
Paxton Oil & Gas Co. and Theodora Oil & Gas Co., Tulsa	306
Pyramid Oil Co., The, Winchester, Ky.	10,680
Peer Oil Corp., Tulsa	1,441
Penman Oil & Gas Co., Okmulgee	7,599
Penna. Oil Corp., Warren, Pa.	514
Penna. Oil & Lumber Corp., Warren, Pa.	657
Pennok Oil Corp., Tulsa	83,826
Penrod, John, Okmulgee	254
Penrod, Thompson, et al, Okmulgee	1,323
Pensy Oil Corp., Tulsa	205
Perkins, F. E., Tulsa	910
Perkins, J. J., Wichita Falls, Tex.	1,502
Perrine, Irving, Oklahoma City	89
Perrine, Irving, and W. C. White, Oklahoma City	267
Peters, Chas. B., Tulsa	71
Peters, Leahy Oil Co., Tulsa	753
Peterson, S. F., Tulsa	1,752
Petroleum C.o, The, Tulsa	6,586
Petroleum Co., The, and M. H. Mosier, Tulsa	17,395
Petroleum Extraction Co., New London, Conn.	725
Petroleum Exploration, Sistersville, W. Va.	168
Pettigrove, A. H., Deweyey	1,174
Phillips & Milam, Chelsea	26,521
Phillips Oil Co., Chelsea	2,962
Phillips Petroleum Co., Bartlesville	1,863,179
Phoenix Co., Okmulgee	205
Pine, W. B., Okmulgee	65,392
Pine, W. B., trustee, Okmulgee	1,332
Pine, R. D., Okmulgee	415
Pilgrim Petroleum Co., Wichita Falls, Tex.	7,873
Pioneer Petroleum Co., Tulsa	17,937
Plains Petroleum Co., (N. T. Gilbert and Joseph Glass receivers), Tulsa	19,133
Plover Drilling Co., Bartlesville	16,136
Plumb, A. O., Tulsa	615
Plymouth Petroleum Co., et al, Tulsa	16,033
Pollock & Donohue, Tulsa	124
Pollock, R. H., and Elvira J., Bartlesville	124
Pope & Wilson, Inc., Oklahoma City	670
Posey Oil & Gas Co., Kansas City, Mo.	44
Post Oak Crude Oil & Gas Co., Logan, Ia.	985
Pottawatomie Oil & Gas Co., Tulsa	450
Pouder & Pomeroy, Tulsa	955
Pooler Creek O. & G. Co., Tulsa	948
Prairie Oil & Gas Co., Independence, Kans.	2,163,410
Preston, A. R., Okmulgee	435
Preston, A. R., trustee, Okmulgee	688
Prescott & Snider, Kansas City, Mo.	94
Price, Ernest, et al, Muskogee	200
Price, Sylvan S., Tulsa	317
Priddy, W. M., Wichita Falls, Tex.	587
Prince, C. V., Okmulgee	210
Probst, George C. and Jas B. Morrison and S. S. Robinson, Tulsa	1,320
Probst, George C., et al, Tulsa	215
Probst, George C. and James B. Morrison, Tulsa	75
Producers Oil Co., Tulsa	13,612
Producers & Refiners Corp., Denver, Colo.	410,690
Purdy Petroleum Corp., Tulsa	1,247
Pure Oil Co., Columbus, Ohio	716,662
Pyramid Oil & Gas Co., Winchester, Ky.	10,680
Q	
Quinlan, Felix, Tulsa	494
Quinlan, C. P., Tulsa	4,222
R	
Rabbits Foot Oil Co., Davenport, Iowa	3,348
Radcliffe Oil Co., Tulsa	620
Ralph, S. Harry, Winfield, Kans.	257
Ramsey Oil Co., Caney, Kans.	3,531
Ramsey, W. R., and W. E., Oklahoma City	84,688
Randall, W. S., and Dan Whitney, Cedar Rapids, Iowa	1,999
Ranger Gulf Corp., Tulsa	8,836
Roumania Oil Co., Ardmore	310
Ray, Tunie S., Okmulgee	250
Raydure W. R., Bowling Green, Ohio	753
Red Bank Oil Co., Tulsa	25,720
Redoak Oil Trust, Ardmore	4,653
Reed & Harmon, Nowata	5,472
Reed, H. W., agent, Nowata	1,066
Reesman, S. S., Tulsa	524
Reeves, George M., trustee, Morris	375
Regal Oil & Gas Co., Tulsa	19,217
Regal Oil Co., Pittsburgh, Pa.	1,381
Reilly, P. J., Nowata	190
Reinhardt, C. H., Chelsea	1,248
Reliance Oil Co., The, Houston, Tex.	6,925
Reliance Oil Co. of Okla., Houston, Tex.	5,269
Reno Oil Co., Sistersville, W. Va.	1,282
Reno Oil Co. and E. J. Flynn, Sistersville, W. Va.	2,739
Reynolds, Roy R., estate, Tulsa	964
Reynolds, W. G., Okmulgee	326
Reynolds, W. G., receiver, Okmulgee	534
Reynolds Oil & Gas Co., The, Independence, Kans.	1,368
Rex Oil & Gas Co., Winchester, Ky.	10,680
Rice Creek Prod. Co., Tulsa	460
Rice, T. E., and Frank Brewster, Talala	401
Richards, A. M., Cleveland	675
Richards, Walter W., treasurer, Wilmington, Del.	1,620
Richmond Gasoline Co., Tulsa	852
Riddle, Mabel L., estate, Tulsa	45
Riner, J. J., Nowata	233
Riner, J. J., treasurer, Nowata	88
Riner & Shipley, Nowata	205
Ringling, John, Ardmore	4,923
Riverland Co., Tulsa	3,866
Roberts, C. M., Ogmulgee	1,250
Roberts, George D., Tulsa	7,471
Robertson & Harmon, Nowata	502
Robinson, E. L., Tulsa	26,868
Robson, H. J., Wichita, Kans.	1,082
Rockland Oil Co., Ardmore	49,926
Rogan Oil Co., Tulsa	1,858
Rogers, The A. H., estate, Joplin, Mo.	878
Royer, E. H., No. 1, Ardmore	467
Rood, Foster & Meloy, Bartlesville	1,276
Rose City Oil Co., Emporia, Kans.	712
Rose, J. E., Muskogee	38
Rosenthal, Henry, Wichita, Kan.	750
Ross, E. A., Tulsa	35
Ross, C. O., Coffeyville, Kans.	3,145
Roth, C. E., Independence, Kans.	2,907
Roth, E. K., Tulsa	296
Roxana Petroleum Corp., St. Louis, Mo.	2,128,947
Roxoline Petroleum Co., Oklahoma City	828
Rubana Oil Co., Wichita, Kans.	84
Rumbaugh, G. N., Tulsa	3,712
Ruth Fuel Co., Bartlesville	2,995
Ryan Cons. Petroleum Corp., Bartlesville	13,716
S	
Salt Creek Oil Co., Nowata	615
Samuel, J. B., and W. B. Stewart et al, Robinson, Ill.	510
Sanders Oil & Gas Corp., Tulsa	786
Sanderson, M. P., Oxford, Kans.	154
Sapulpa Refining Co., Denver, Colo.	115,981
Savoy Oil Co., Tulsa	32,074
Sawyer, F. L., trustee, Independence, Kans.	120
Schaff, Mrs. Gertrude E., Tulsa	353
Schaffer, Danner & Snowden & McSweeney Co., New York, N. Y.	1,026
Schlegel & Shreve, Tulsa	420
Schermerhorn Oil Co., Tulsa	8,120
Schermerhorn-Ardmore Co., Minneapolis, Minn.	63,453
Schermerhorn, J. B., Inc., Minneapolis, Minn.	69,247
Schermerhorn-Young Co., Minneapolis, Minn.	4,472
Schlingman, H. Wm., trustee, Tulsa	1,860
Schmidt, Louis and Louisa K., Sapulpa	355
Schock, J. J., Oil & Gas Co., Okmulgee	648
Schoenfeld, C. H., & Son, Stroud	1,650
Schoenfeld, Chas. H., J. F., Millikin, George C. and Karl M. Probst, Tulsa	442
Schoenfeld & Millikin, Stroud	1,610
Schonwald, Dave, Blackwell	3,250
Schrieber, Theodore, Ardmore	194
Scotland Oil Co., Robinson, Ill.	500
Scott & Arrington, Walters	315
Scot, Earl K., Chelsea	257
Scott, Eufa, Los Angeles, Calif.	2,306
Seagrave, S. F., Baxter Springs, Kans.	76
Searight, F. J., Tulsa	14,407
Selby, J. L., Muskogee	3,108
Selby Oil & Gas Co., Tulsa	88,409
Sellers, H. M., Bartlesville	1,026
Shaffer, C. B., trustee, Chicago, Ill.	460
Shaffer Oil & Ref. Co., Tulsa	523,573
Sharp, Robert C., Tulsa	4,957
Shear-Marcus Oil Co., Bradford, Pa.	620
Sheeders, Frank S., Pawhuska	254
Sheeders Oil Gas Co., The, Pawhuska	1,128
Sheedy, Frank, Independence, Kans.	670
Sheets, A. M., Copan	296
Sheets, E. H., Copan	305
Sheets, M. E., Copan	296
Sheridan Oil Co., Tulsa	14,663

[DUNN TOOLAGRAM]



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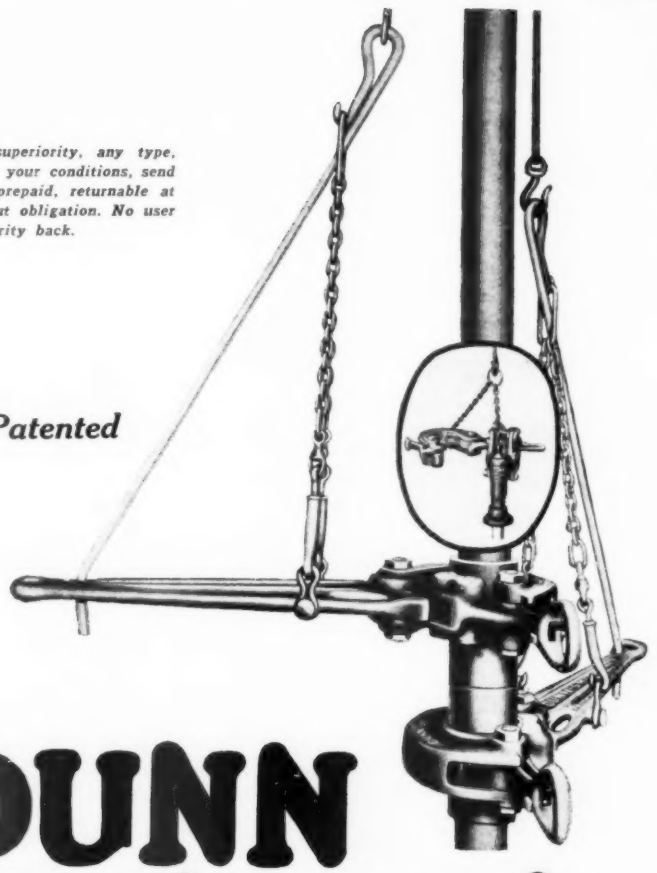
Present
Future

Just this~ DUNN SUPERIOR

Safety
Speed
Stamina

For Dunn Tong superiority, any type, demonstrated under your conditions, send for one on trial, prepaid, returnable at our expense, without obligation. No user ships Dunn superiority back.



Patented

Dunn Safety Rotary Tongs have two jaws that *interlock and co-act* with the movement of the handle in gripping the pipe, automatically adjusting to take pipe, collar and tool joint *without bushing.*

Dunn Safety Tongs of all styles are fully detailed in folders which will be sent upon request.

DUNN MANUFACTURING COMPANY
Office and Works: Oxnard, California

Mid-Continent Branch Warehouse: 309 West First Street, Tulsa, Okla.

Export Sales Office: 150 Broadway, New York City

The Dunn Group of Tongs A Type for Every Need

Dunn Safety Casing Tongs, all Standard Sizes and Special Sizes, with bushings to fit "BPM," "APOC," "BOC," and many other prominent oil companies' special sizes of casing and boring tubes.

Dunn Safety No-Bushing Rotary Tongs, Suspension Type.

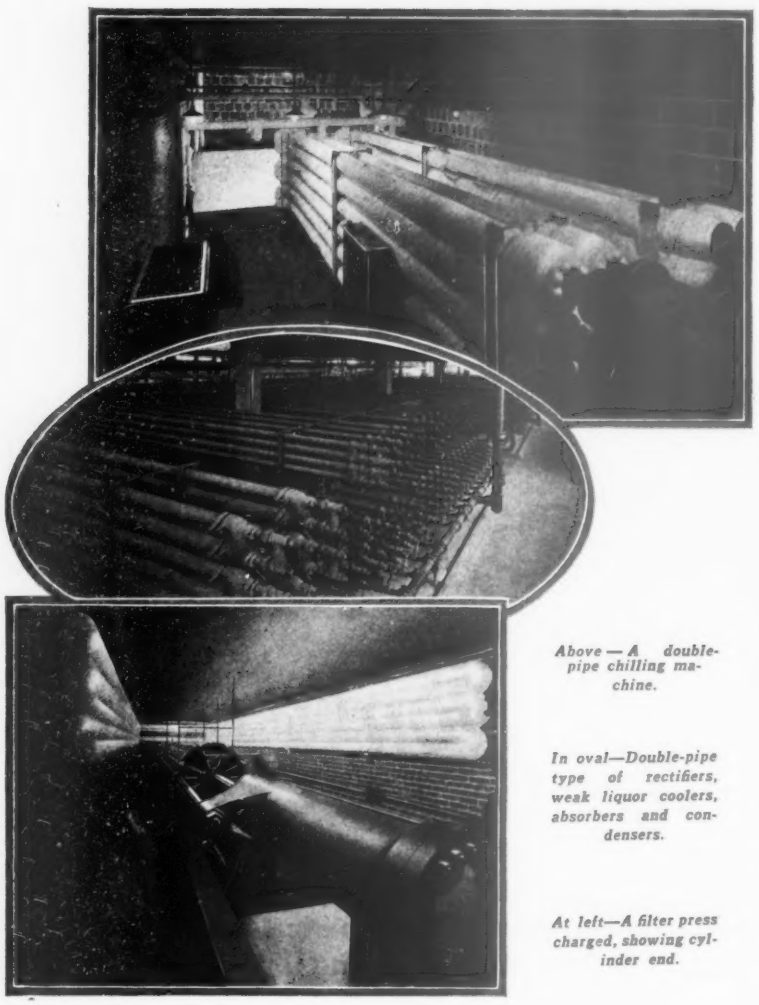
Dunn Safety No-Bushing Rotary Tongs, Table Type.

Dunn Safety Tubing Tongs, ("Dunn-Smith TONG" Type).

Dunn Safety Tubing Tongs, (Type "LN").

DUNN SAFETY ROTARY TONGS

DUNN SAFETY *means* DONE SAFELY



Above — A double-pipe chilling machine.

In oval—Double-pipe type of rectifiers, weak liquor coolers, absorbers and condensers.

At left—A filter press charged, showing cylinder end.

Gulf Refining Chose Carbondale

Supreme Auto Oil owes its popularity to proven lubricating qualities. It can be depended upon for consistent performance.

The same may truthfully be said of Carbondale Refrigeration. Refiners know from experience that Carbondale Machinery will give the same dependable service, year after year.

The fact that plants in operation for more than 30 years are still giving satisfactory service, testifies to the quality of performance which may be expected.

CARBONDALE MACHINE COMPANY
Carbondale, Pa.
Branches in Principal Cities

Carbondale Refrigeration CARMACO *for Refiners*

Sheridan Oil Co., trustee, Tulsa	115
Sherry, Wm. J., Tulsa	149
Shertzer Bros., Dewey	6,015
Shipley, John M., Nowata	188
Shonk-Crawford Co., Charleston, W. Va.	6,469
Shoreline Oil & Gas Co., Tulsa	4,030
Short Grass Oil Co., Norton, Kans.	609
Showalter & Cutchall, Sapulpa	409
Shufflin, M. B., Coffeyville, Kans.	1,492
Shuler & Fischer, Tulsa	2,584
Shulthis, A. W., estate, Independence, Kans.	1,290
Sidwell Drilling Co., Sapulpa	2,410
Siggins, Shope & Co., Coffeyville, Kans.	177
Sikes, Louis-Boggs Oil Corp., Oklahoma City	32,778
Silurian Oil Co., The, St. Louis, Mo.	125,748
Silver Moon Oil Co., Tulsa	757
Simms Oil Co., Dallas, Tex.	75,070
Simons, G. A., Okmulgee	9,250
Simons, I. D., Tulsa	6,736
Simpson-Fell Oil Co., Ardmore	33,768
Sinclair Oil & Gas Co., Tulsa	2,340,144
Sitrin Brothers, Tulsa	4,901
Skelly Oil Co., Tulsa	917,466
Skelly, W. G., Tulsa	3,731
Skelton, L. S., estate, Okmulgee	14,375
Skelton-Moore Oil Co., Bartlesville	7,992
Slater, R. A., Tulsa	2,463
Slick Oil Co., Tulsa	1,372
Slick, T. B., Clarion, Pa.	379,856
Sloan, E. H., Tulsa	107
Sloan, J. W., trustee, et al, Tulsa	10,784
Slyman, Deeb, Bristow	610
Smedley, A. W., Tulsa	350
Smith, Carl D., Agra	2,419
Smith, C. T., Okmulgee	2,174
Smith, C. T., trustee, Okmulgee	779
Smith, D. M., Okmulgee	1,112
Smith, D. M., and F. W. Hulings, Okmulgee	279
Smith & Dougherty, Nowata	224
Smith, E. T., & Co., Bartlesville	459
Smith, George H., Oklahoma City	215
Smith, George P. Oil Co., Wichita Falls, Tex.	4,262
Smith, G. J., Tulsa	35,701
Smith-Hanlon, Inc., Tulsa	1,730
Smith, J. P., and A. P. Morgan, Sapulpa	49
Smith-Lee Oil & Gas Co., Durant	1,035
Smith, P. C., Tulsa	1,910
Smith, Paul W., Tulsa	290
Smith, Samuel H., Oil Co., Tulsa	291
Smith & Steinberger, Tulsa	752
Smith, T. K., Tulsa	5,749
Smith, Will H., Ardmore	2,872
Smith, Will H., trustee, Ardmore	36,878
Snowden-Danner et al, Tulsa	2,817
Snowden & McSweeney Co., New York, N. Y.	38,848
Southern Oil & Gas Co., Coffeyville, Kans.	2,414
Southern Crude Oil Purchasing Co., Shreveport, La.	101
Southwestern Oil Fields Co., Tulsa,	
Southwestern Oil Fields Co., Tulsa	36,015
Southwestern Oil, Gas & Coal Co., Independence, Kans.	2,103
Southwestern Petroleum Co., Tulsa	290,890
Southwestern Petroleum Co., J. A. Lovell, Dot L. Lovell and W. T. Hastings, Tulsa	1,542
Southwestern Pet. Co., P. H. Lord, estate, Chas. S. & Henry G. Lord, Tulsa	5,402
Speary, C. F. & J. M. & John Mills, Marietta, Ohio	4,825
Speary, G. M., Okmulgee, Okla.	275
Speegle & Hall, Duncan	1,662
Spurgin, J. G., Bixby	431
Sperata Oil Co., Bartlesville	797
Spiers, A. J., Jenks	398
Sprague Oil Co., Ardmore	5,466
Spring Oil Co., Independence, Kans.	2,079
Stager & Cornelius, Nowata	488
Stager, J. A., Nowata	1,754
Stake Oil Co., Independence, Kans.	141
Standeven, H. L., & Jas. S. Terry, Tulsa	1,322
Standish Oil Co., Bartlesville	6,226
Stauffer, M. T., agent, Tulsa	87
Stearns Drlg. Co., Okmulgee	3,170
Stein, P. H. & M. S. Mussellem, Muskogee	840
Steinberger, C. A., Tulsa	863
Steinberger & Lucas, Skiatook	804
Stephens, B. A., trustee, Wagoner	938
Stephens, C. S., Coffeyville, Kans.	209
Sterling O. & G. Co., Tulsa	20,832
Sterling G. & O. Co., Columbus, O.	606
Steyner Oil Co., Bartlesville	14,407
Stine, J. C., Tulsa	367
Stoddard, C. H., Tulsa	1,271
Stogsdill, L. H., trustee, Tulsa	874
Stoner Brothers, Tulsa	235
Stout, J. M., trustee, Muskogee	925
Stout, W. E., Parkersburg, W. Va.	250
Stover, J. L., Tulsa	3,839
Stover, O. P., Sapulpa	351
Stralem, C. I., Tulsa	322
Striker, John H., Tulsa	171
Strimple, J. A., Janesville, Wis.	806
Sturm, H. L., Ardmore	590
Sturm Drlg. Co., Ardmore	6,641
Sullivan, E. J. & W. C. Dickey, Bartlesville	694
Sullivan, M. J., executor, Kansas City, Mo.	85
Sullivan, M. J., Kansas City, Mo.	83
Summitt Oil Co. & Sand Fork G. & P. Co., Bartlesville	623
Sunray Oil Corp., Oklahoma City	55,326
Superior Oil Corp., The, Lexington, Ky.	50,524
Sutherland Pet. Co., Ardmore	5,031
Sutton, Geo. R., Prague	790
Sure Oil Corp. (N. T. Gilbert, receiver), Tulsa	5,835
Swain, Guy, Bartlesville	142
Swanson, John & Fred Swanson, estate, Chanute, Kans., & Dan Kelly, Marietta, Ohio	1,488
Swastika Oil Corp., Tulsa	249
Sweeney, J. F. & Co., Tulsa	6,381
Swindler, J. A. & Son, Muskogee	16,725
Swindler, J. A., Muskogee	2,025
Swoap, J. F., Oilton	674
Sykes, C. E., Ardmore	1,466

T

Taft Oil Co., The, Independence, Kans.	2,994
Tait, S. W., Montpelier, Ind.	298
Terhune, I. H., Tulsa	583
Terrell Co., The, Terrell, Tex.	3,930
Terriokla O. & G. Co., Muskogee	76
Terwilliger, C. H., Tulsa	1,074
Test Oil Co., Bradford, Pa.	4,204
Texas Company, The, Prod. Dept., Tulsa	978,215
Texas-Okla. Inv. Co., Independence, Kans.	1,338
Texas Pacific Coal & Oil Co., Thurber, Tex.	125,828
Texhoma O. & R. Co., Wichita Falls, Tex.	2,230
Texokan Prod. Co., The, Coffeyville, Kans.	91
Tidal Oil Co., Tulsa	480,199
Tidal-Osage Oil Co., Tulsa	260,642
Tiger Mountain Oil Co., Tulsa	8,141
Tiger Pet. Co., Tulsa	7,807
Thieman, F. P., Tulsa	175
32nd O. & G. Co., Ardmore	3,628
Thlocco Oil Co., The, Tulsa	12,272
Thomas, R. W., Tulsa	1,885
Thompson, J. N., Tulsa	158
Thompson, John C., Tulsa	71
Thompson, J. N. & W. M. & Roy B., Tulsa	197
Thompson, Jordan, et al, Okmulgee	909
Thompson, Milton, Cushing	177
Thompson O. & G. Co., Tulsa	6,404
Thompson, R. D., Okmulgee	222
Thompson, R. D., Okmulgee	246
Thompson, R. D., trustee, Okmulgee	925
Thompson, R. D., et al, Okmulgee	424
Thompson, Wallace, et al, Okmulgee	745
Thompson & Welder, Cleveland	3,222
Thompson, Wm. M. & Roy B., Tulsa	510
Thurvan Oil Co., Bartlesville	764
Thurmond, T. A., Ardmore	2,728
Trainer, J. E., et al, Salem, W. Va.	156
Trainer O. & G. Co., Bartlesville	557
Transcontinental Oil Co., Tulsa	213,624
Travis, M. R., Tulsa	1,150
Traywick, N. E., Okmulgee	137
Trefts, John C., Buffalo, N. Y.	395
Troy, Mrs. Josie, Muskogee	60
Troy, M. A. & G. W. Howard, Olean, N. Y.	72
Troy O. & G. Co., Sapulpa	4,687
Tull O. & G. Co., Yale	412
Tuloma Oil Co., Tulsa	147
Tulsa Co., The, Oklahoma City	9,697
Turley, G. W., Oklahoma City	176
Turman Oil Co., (N. T. Gilbert & Joseph Glass, receivers), Tulsa	41,650
Turner, D. J., Boley	163
Turner, T. E. & T. C., Mounds	592
Tuttle-Keppel Oil Co., Hominy	1,106
Twitchell, J. A., Okmulgee	391
Twin State Oil Co., The, Tulsa	394,818
Tyee O. & G. Co., Bartlesville	1,271
Tyler, H. F., et al, Dewey	3,342

U

Umburn, Gilla, Weleetka	650
Umburn, W. L., Weleetka	4,226
Una Lee Oil Co., Blackwell	565
Union O. & M. Co., Indianapolis, Ind.	2,293
Upp, O. E., Tulsa	71
Upp, O. E., et al, Tulsa	722
Urschel, C. F., Oklahoma City	4,211
Urschel, Flored S., Oklahoma City	4,211
Utah Oil Corp., Okmulgee	14,896

V

Valley Osage Oil Co., Tulsa	21,706
Vance, S. E., Tulsa	953
Van Dall Brothers, Bartlesville	1,619
Van Eman, G. L., Jennings	2,144
Van Horn, E. E., Chelsea	229
Van Moss Oil Co., Bartlesville	849
Vee Oil Co., Oklahoma City	323
Vensel, Elliott & Vensel, Tulsa	2,278
Verland O. & G. Co.-(N. T. Gilbert & Joseph Glass, receivers), Tulsa	5,019
Vicmar Oil Co., Tulsa	3,437
Viersen, A. A., Okmulgee	1,238
Vogler, A. F., Tulsa.; J. A. Lightner, Boynton & John Swanson, Chanute, Kans.	666
Vowell-Jackson, Sapulpa	6,124

W

Wade, J. E., Tulsa	565
Wah-shah-she Oil Co., Bartlesville	6,232
Walda O. & G. Co., Carlisle, Pa.	6,348
Walker Oil Co., Tulsa	1,651
Walker, P. G. & O. K. Eysenbach, Tulsa	355
Walker Valley Oil Co., Duncan	629
Wall Oil Co., Tulsa	214
Wallace, F. H., Tulsa	1,414
Wallace, Harold, bankrupt, Ardmore	2,818
Walsh Oil Co., The, Tulsa	6,764
Walter, H. J., Tulsa	533
Wampum Oil Corp., Dallas, Tex.	3,690
Ward O. & G. Co., Tulsa	3,195
Warner-Caldwell Oil Co., Titusville, Pa.	28,078
Warner & Moyar, trustees, Titusville, Pa.	762
Warren Oil Co., St. Louis, Mo.	201
Warwick, L. H., trustee, Nowata	301
Wasson, W. J., Cleveland	250
Watchorn O. & G. Co., Okla. City	90,421
Watchorn, Robert, Oklahoma City	4,190
Wayne Oil Co., Tulsa	1,720
Webb, R. N., Tulsa	155
Weber, Howard, Bartlesville	2,301
Weber, Obins & Beattie, Bartlesville	684
Weber & Qualls Oil Co., Tulsa	435
Webster, G. W., Tulsa	1,658
Weidemer, C. E., Ochelata	215
Welch, F. P., Rock Island, Ill.	154
Welch G. & O. Co., Stillwater	395
Wells, John, Friendship, N. Y.	101
Wellsville Oil Co., Wellsville, N. Y.	2,328
Welsh, A. L., Oklahoma City	6,250
Welsh, J. D., Kansas City, Mo.	522
Welsh, M. P., & John & C. T. Dougherty, Nowata	329
Wentz, L. H., Ponca City	798,721
West, J. H., Tulsa	3,381
Western American Oil Co., Bartlesville	2,729
Western Natural Gas Co., Tulsa	2,069
Western Oil Corp., Tulsa	7,772
Western States O. & L. Co., Casper, Wyo.	767
Westerly Oil Co., Bartlesville	38,698
Westervelt-Noble O. & G. Co., Oklahoma City	4,230
Westheimer & Daube, Ardmore	150,253
Westland Oil Corp., Tulsa	9,435
Wunder-Ritch Oil Co., Okmulgee	289
Wheeler, B. B., Muskogee	343
White Eagle O. & R. Co., Wichita, Kans.	19,438
Whitehill, B. F., Tulsa	1,885

Here's Where the Bushing Works

Another Reason Why Link-Belt Chain Lasts Longer

THE BUSHING provides the bearing surface for both roller and pin. Its job is no easy one, placed as it is, betwen two "mill stones"—one above, the other below.

But in spite of its position, this bushing asks no favors, because it's built for its work—made tough, hard, and durable, by Link-Belt's methods. It contributes its share to the long, reliable service of SS-40 Plus and SS-124 Plus Chains.

These bushings are shaped to maintain uniform spacing between the side bars, into which they are press fitted, and locked to prevent rotation.

Made of cold rolled strip steel, accurately curled to size and case-hardened, the loads and stresses of drilling are carried on its smooth, hard bearing surface without effect, even after long use.

When you know the make-up of a Link-Belt Chain you know why its performance is unequaled. When you use it on your rigs, you'll remember where you got it. Insist on genuine Link-Belt Chains.

2733

LINK-BELT COMPANY

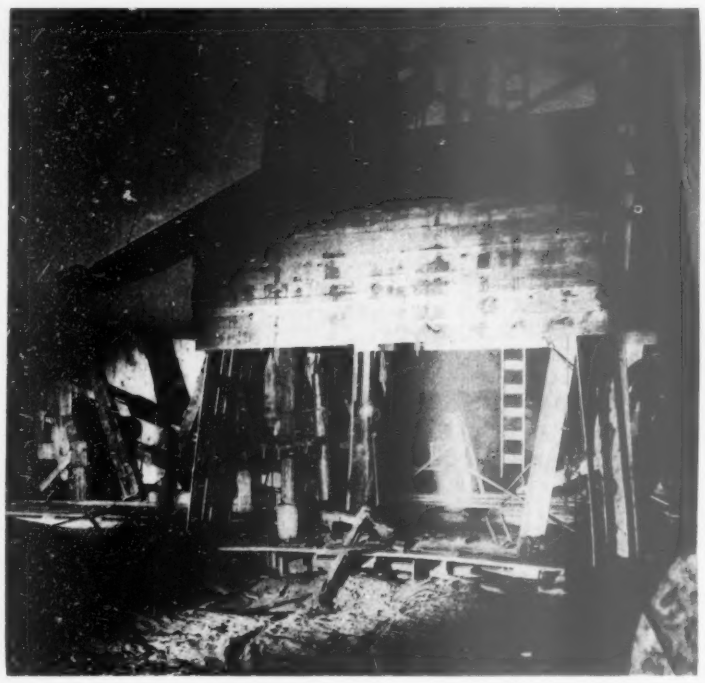
Leading manufacturers of Elevating, Conveying, and Power Transmission Chains

INDIANAPOLIS, 200 S. Belmont Ave.

LINK-BELT

SS-40+ (Plus) Rotary Chain SS-124+ (Plus)

XUM



Typical example of rig lighting with one Pyle-O-Lyte projector.

Be Sure of Your Lights
No Matter What Happens

WITH a simple, fool-proof installation consisting of a Pyle-National turbo-generator and one or two Pyle-O-Lyte floodlight projectors you have a new kind of dependable rig lighting.

Pyle-O-Lytes are sturdy, enclosed floodlight projectors, built to withstand rough service, protected against the weather and always ready to give a big beam of light over the whole working area.

Wiring is much simpler than for any other kind of rig lighting layout, much safer, much less expensive. Only one or two projectors to connect up, instead of two dozen small lights on a string.

Pyle-National turbo-generators furnish steady, dependable power anywhere you have steam. Rugged construction stands up in the field without excessive maintenance.

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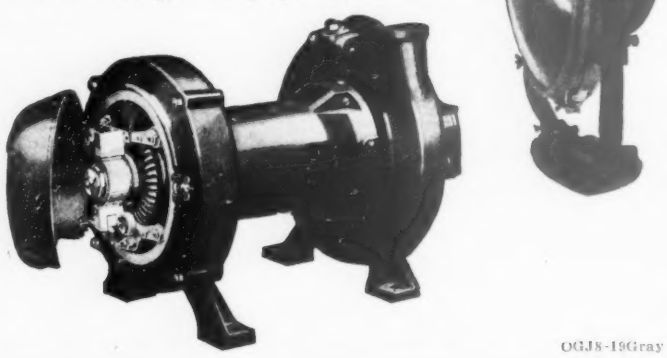

OGJ8-19Gray

Whitehill, Donovan & Whitehill, Tulsa	767
Whitehill, Donovan, Hayden & Whitehill, Tulsa	784
Whitehill & Glass, Tulsa	788
Whitehill, Howard J., Tulsa	111
Whitehill, S. M., Okmulgee	502
Whitehill & Smith, Tulsa	1,386
Whitehill & Weible, Tulsa	1,116
Whitmer, C. J., trustee, South Bend, Ind.	142
Whiteside, R. B., Duluth, Minn.	266
Whitfield, B. V., Oklahoma City	2,886
Whittier, M. H., Tulsa	762
Wick Pet. Co., St. Louis, Mo.	75
Wickett, F. H., Shreveport, La.	3,475
Wigton & Long Co., Okmulgee	32,122
Wilcox, Fred L. & George C. Schmuck, Tulsa	414
Wilcox, H. E., Indianapolis, Ind.	63
Wilcox, H. F.-Pampa Oil Co., Tulsa	6,595
Wilcox, H. F., O. & G. Co., Tulsa	236,682
Wilcox, H. G. & E. M. Oswalt, Tulsa	94
Wilhoit, Ethel J., executrix, & R. M. Jones, trustees, Kansas City, Mo.	1,221
Wilhoit, J. C., No. 2, acct., Kansas City, Mo.	214
Winchester O. & G. Co., Blackwell	111
Wineland Oil Co., Boynton	2,725
Winemiller, J. H., Tulsa	626
Winkler & McQueen, Inc., Duncan	13,279
Winona Oil Co. of Delaware, Tulsa	77,565
Winters, M., Independence, Kans.	670
Winters Oil Co., Bradford, Pa.	967
Wise & Jackson, Sapulpa	5,609
Wiser Oil Co., Bartlesville	80,796
Withington, Margaret M., Marietta	316
Withington Oil Co., Dewey	2,538
Wittmer property, trustees, Pittsburgh, Pa.	15,824
Wood Oil Co., Tulsa	37,996
Wood, T. J., Tulsa	2,371
Woodward, Burkett & Woodward, Nowata	2,145
Woodard, George E., Nowata	804
Woodard & Woodard, Nowata	1,584
Woodard & Woodard Tools, Nowata	72
Wolfe, Frank, Tulsa	15
Wolfe, Frank, trustee, Tulsa	590
Wolfe Oil Corp., Bristow	6,085
Wolford, J. N., Tulsa	92
Wolverine Pet. Corp., St. Louis, Mo.	305,236
W. P. O. & G. Co., Cleveland	625
Wright, C. H., Oklahoma City	278
Wright, J. H., Sapulpa	186,403
Wright, W. T., Tulsa	118
Wylie, W. J., Bristow	1,250
Y	
Young, George L., Dewey	438
Z	
Zahn & Crawford, Tulsa	2,270
Zola Oil Co., Tulsa	19,976
Total	43,016,606

RICHFIELD REORGANIZED; INCREASES CAPITAL

LOS ANGELES, Calif., Aug. 14.—Recent interesting developments in California was the reorganization of United States Oil Co. and its subsidiaries, including the Richfield Oil Co., under the name of Richfield Oil Co. of California, with a capitalization of $60,000,000. This step places the new corporation as one of the major oil companies of California.

The large increase in capitalization, however, was not altogether unexpected, because the Richfield Oil Co. has enjoyed phenomenal growth, especially during the past two years, and sufficient capital to carry on the necessary expansion program was needed. This marketing company has shown both a large and steady increase in its gasoline sales and now ranks as the third largest distributor of gasoline in the state.

SYNTHETIC BENZINE

The administration of the German Dye Trust (I.G.) confirms that negotiations have been proceeding aiming at an agreement concerning the Bergin process for producing synthetic benzine. The object of the discussions is stated to have been the question of eliminating from certain markets of the possibility of competition from synthetic benzine. It is believed this product can be put on the market at from 16 to 19 cents per imperial gallon after the necessary plant has been completed. The administration of the I.G. states that a fundamental basis for such an agreement has been found.

VISITING TULSA

Harry B. Rheuark of the Shreveport Chemical Co. of Shreveport, La., makers of Set Fast, is visiting C. R. Hall of the Set Fast Sales Co. of Tulsa, Okla.

RECEIPTS OF CALIFORNIA OILS AND PETROLEUM IMPORTS IN JUNE

According to figures collected by the American Petroleum Institute, imports of crude and refined oils at the principal ports for the month of July totaled 6,488,000 bbls., a daily average of 209,290 bbls., compared with 6,591,000 bbls., a daily average of 219,700 bbls. for the month of June.

Imports at the principal United States ports for the week ended July 31 totaled 1,310,000 bbls., a daily average of 187,143 bbls., compared with 1,863,000 bbls., a daily average of 266,143 bbls. for the week ended July 24.

IMPORTS OF PETROLEUM AT UNITED STATES PORTS
(Barrels of 42 gallons.)

	Total July	Total June	Week Ended July 31	Week Ended July 24
At Atlantic Coast Ports—				
Baltimore	667,000	474,000	188,000	83,000
Boston	241,000	324,000	.....	65,000
New York	2,776,000	2,619,000	613,000	762,000
Philadelphia	148,000	195,000	.....	48,000
Others	812,000	638,000	202,000	*330,000
Total	4,644,000	4,250,000	1,003,000	1,288,000
Daily average	149,806	141,667	143,286	184,000
At Gulf Coast Ports—				
Galveston district	410,000	759,000	70,000	137,000
New Orleans and Baton Rouge	1,233,000	1,268,000	195,000	390,000
Port Arthur and Sabine district	63,000	197,000	.....	.....
Tampa	138,000	117,000	42,000	48,000
Total	1,844,000	2,341,000	307,000	575,000
Daily average	59,484	78,033	43,857	82,143
At All United States Ports—				
Total	6,488,000	6,591,000	1,310,000	1,863,000
Daily average	209,290	219,700	187,143	266,143

*Revised.

Receipts of California crude and refined oils at Atlantic and Gulf Coast ports for the month of July totaled 2,123,000 bbls., a daily average of 68,484 bbls., compared with 3,318,000 bbls., a daily average of 110,600 bbls. for the month of June.

Receipts at Atlantic and Gulf Coast ports for the week ended July 31 totaled 417,000 bbls., a daily average of 59,571 bbls., against 776,000 bbls., a daily average of 110,857 bbls. for the week ended July 24.

CALIFORNIA OIL RECEIPTS AT ATLANTIC AND GULF COAST PORTS
(Barrels of 42 gallons.)

	Total July	Total June	Week Ended July 31	Week Ended July 24
At Atlantic Coast Ports—				
Baltimore	486,000	736,000	172,000	*239,000
Boston	90,000	330,000	.....	.....
New York	765,000	684,000	94,000	239,000
Philadelphia	374,000	1,034,000	.....	*298,000
Others	*388,000	534,000	131,000	.....
Total	2,103,000	3,318,000	397,000	776,000
Daily average	67,839	110,600	56,714	110,857
At Gulf Coast Ports—				
Tampa	20,000	.....	20,000	.....
Daily average	645	.....	2,857	.....
Total Atlantic and Gulf Coast ports	2,123,000	3,318,000	417,000	776,000
Daily average	68,484	110,600	59,571	110,857
DISTRIBUTION OF TOTAL CALIFORNIA OIL RECEIPTS IS AS FOLLOWS:				
Crude	1,070,000	1,467,000	262,000	235,000
Gasoline	459,000	812,000	155,000	153,000
Gas oil	450,000	529,000	.....	313,000
Fuel oil	144,000	452,000	.....	75,000
Lubricating	.....	58,000	.....	.....
Total	2,123,000	3,318,000	417,000	776,000

*Revised.

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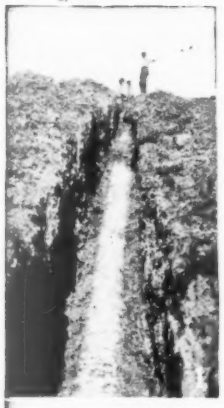

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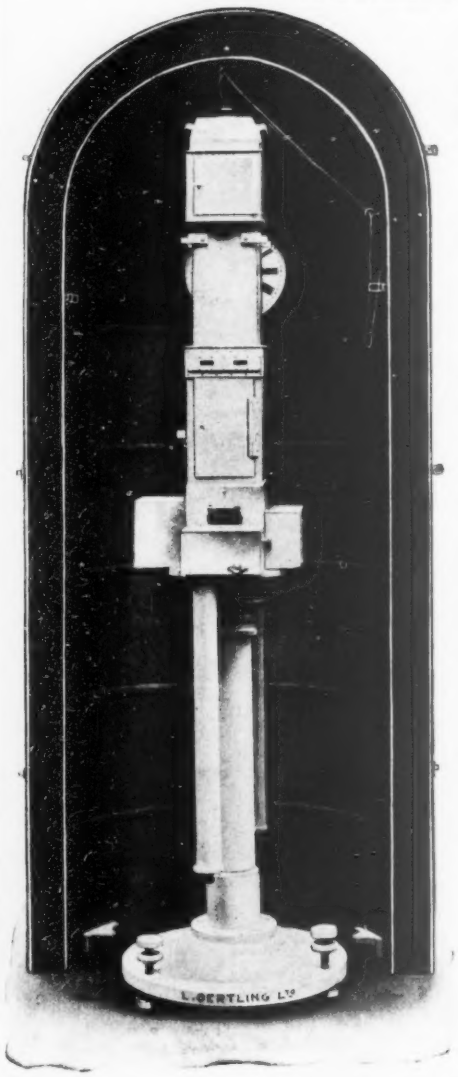

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GENERAL PRODUCTION SITUATION APPEARS IN HEALTHY CONDITION

By James McIntyre

The 54 leading pools of the United States on July 31, together with six other pools which figured among the leading pools in 1925 by reason of the fact that they produced an average of 10,000 bbls. a day or over for the whole year, were, on July 31, producing a total of 1,557,000 bbls. a day out of a total of approximately 2,085,000 bbls., the estimated production of the United States on that day.

The same 60 pools averaged last year 1,580,335 bbls. a day indicating a drop of only 23,335 bbls. a day even though the total average production of 1925, 2,081,774.

The average production on July 31, 1926, estimated at 2,085,000 bbls., may be a little low, yet it was over 3,000 bbls. a day higher than the average production per day in 1925, which was 2,081,774 bbls.

The lesson to be drawn from this is that the old production of the host of pools which are not in the above list is settling very slowly, and that a lot of small pools that have not yet reached the 10,000-bbl. class—and which may never reach it, in fact, are at the same time producing an aggregate that maintains production at a high level. The 60 main pools have fallen off in output but the aggregate production of the United States, outside of the 60 pools listed above, has in fact increased from an average of 501,439 bbls. per day in 1925 to 528,000 bbls. on July 31.

The production situation in the United States at this time may be summarized as follows:

PRODUCTION OF 60 LEADING POOLS

Average production per day in 1925 (bbls.)	1,580,335
Production on July 31, 1926 (bbls.)	1,557,000
Decline	23,335

PRODUCTION OF ALL OTHER POOLS IN U. S.

Average production per day in 1925 (bbls.)	501,439
Production on July 31, 1926 (bbls.)	528,000
Increase	26,561

SUMMARY

Daily average production in 1925 of all fields in United States	2,081,774
Production on July 31, 1926	2,085,000
General increase	3,226

Leading Oil Pools in the United States in 1925 and on July 31, 1926

	Prod. July 31, 1926 Bbls.	Av. Dy. Prod. in 1925 Lbs.
Smackover, Ark. (heavy)	123,500	175,025
Long Beach, Cal.	108,000	110,064
Midway-Sunset, Cal.	93,900	101,160
Tonkawa, Okla.	39,900	62,251
Salt Creek, Wyo.	48,850	59,397
Burbank, Okla.	44,300	54,670
Santa Fe Springs, Cal.	49,000	51,971
Inglewood, Cal.	48,500	50,270
Powell, Tex.	27,600	47,175
Wortham, Tex.	7,675	43,901
Huntington Beach, Cal.	43,500	43,527
Dominguez, Cal.	20,500	36,517
Archer, Tex.	30,300	36,313
Torrance, Cal.	29,000	36,280
Elk Hills, Cal.	35,100	32,798
Cromwell, Okla.	16,300	31,982
Smackover, Ark. (light)	15,175	27,648
Bristow, Okla.	29,200	26,158
Luling, Tex.	22,600	25,403
*Ventura-Newhall, Cal	46,625	25,379
Big Lake, Tex.	29,650	23,998
Cushing-Shamrock, Okla.	21,600	21,985
Papoose, Okla.	10,200	21,377
Coalinga, Cal.	20,500	21,236
Garber, Okla.	36,900	20,506
Hull, Tex.	19,000	19,991
Rosecrans, Cal.	18,650	19,900
Coyote, Cal.	16,700	19,562
Montebello, Cal.	18,400	18,748
Mexia, Tex.	15,300	18,439
Electra, Tex.	16,100	17,246
Kern River, Cal.	11,750	16,169
Bradford, Pa., N. Y.	16,300	15,925
Healdton, Okla.	15,060	15,277
Hewitt, Okla.	11,300	14,588
Burkburnett, Tex.	12,200	14,133
Orange, Tex.	9,500	13,540
Haynesville, La.	9,790	13,194
South Liberty, Tex.	5,675	12,805
Teeter-Pixley, Kans.	20,000	12,534
Wewoka, Okla.	32,600	12,284
Fullerton, Cal.	17,150	12,278
Graham-Fox, Okla.	11,300	12,171
Richfield, Cal.	14,100	11,831
West Columbia, Tex.	8,950	11,462
Caddo, La.	13,000	11,449
Mounds-Beggs, Okla.	10,900	11,036
Rainbow Bend, Kans.	4,100	10,820
10,000 bbl. pools added in 1926:		
Spindletop, Tex.	26,000	1,153
Goose Creek, Tex.	11,500	9,514
Mirando, Tex.	10,250	9,112
Urania, La.	13,350	†26
Lisbon, Ark.	10,350	None
Seely, Kans.	14,400	9,182
Sunburst, Mont.	25,000	7,934
Shackelford County, Texas	11,200	2,875
Wilbarger County, Texas	15,550	9,081
North and South Braman, Okla.	13,100	8,037
Hutchinson County, Texas	66,800	1,048
Seminole, Okla.	14,000	None
Total	1,557,000	1,580,335

*Includes Ventura Avenue Pool.
†First record of production in December, 1925.

TO ARC-WELD BIG BUILDING

The electric arc will supplant the riveting hammer in the erection of two steel buildings for the Westinghouse Electric & Manufacturing Co. at the company's East Pittsburgh and Sharon plants as announced by W. S. Rugg, vice president of the company, before representatives of various steel concerns and technical societies invited to witness tests of arc-welded steel joints and columns at the Carnegie Institute of Technology, Pittsburgh.

The experts were told that the Sharon building, a five-story mill type structure, will be the first practical application of arc-welding in the building of multiple-storied structures and will be the first building in the world with all joints and members designed for arc-welding.

OPENS DALLAS OFFICE

The Taubman Supply Corp. of Tulsa, Okla., announces the opening of its Texas office in the Magnolia Building, Dallas, Tex. E. J. Nordstrum, formerly with the Superior Tube Corp., is vice president and sales manager of the company's new pipe department, and will be in charge of the Dallas office.

COLONEL HUNTLEY DIES

CASPER, Wyo., Aug. 14.—Col. W. H. Huntley, former editor of the Casper Tribune and one of the best liked newspaper writers of this part of the country, died at the Natrona County Hospital Monday evening.

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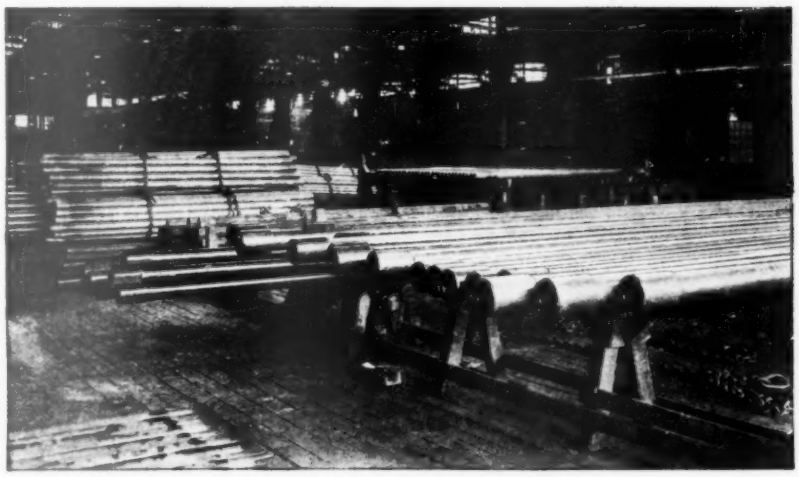

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→ *Write for Bulletin No. 1* ←

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of AMERICA
26 Broadway
New York

CENTRAL WEST FIELD

(Continued from Page 60)

24 hours' production of 10 bbls. The sand was tapped at 1,135 feet and drilled 55 feet in the sand.

The wildcat well of the June Oil Co., 900 feet from the south and east lines of the Ben Hellworth farm, in the southwest quarter of Section 21, Hopewell Township, Mercer County, struck top of sand at 1,100 feet and went 40 feet in the sand, the well producing 10 bbls. the first 24 hours. This well adds a few locations to the productive area and there is room for a number of wells in the intervening space.

The Lima News has this to say about the area near Coldwater, south of the St. Marys or Grand Reservoir, in Mercer County: "Development of a rich gas and oil field, of which Coldwater may be the center, seems almost certain to Mercer County people with the resumption of drilling operations near the town. There are between 30 and 40 gas wells in this territory, many of them now in use and most of them productive, and new ones are being drilled weekly. Operators believe the field will be extensive, with a production when fully developed equal to all demands of the western half of the state if not of a greater area. Coldwater, naturally, is interested, but the people say, 'Once bitten, twice shy,' and wait to be shown. For Coldwater has experienced a miniature boom followed by a sickening collapse of her bubble. However, the rainbow is just beginning to gleam again, and Mercer Countians are tentatively digging around for the pot of gold. With the exception of the Recovery Oil & Gas Co., of Lima, said to control about 20 wells, most of the gas operations are carried on by independent producers. Eliza Dilbone operates about 10 wells, and Dr. P. F. Weamer, mayor of Coldwater, and his colleague, A. A. Lauber, operate three and are drilling one. There are four wells that belonged to the Deffenbaugh interests at the time the gas boom started about three years ago. The pumphouse and lines are inactive. There are two gas wells in this field that have a combined production of 1,000,000 feet daily and another single well that does almost that well, Doctor Weamer said. The flow of some of the others is small, but the heavy flow from the rest encourages the drillers." We are sure there is a rich supply of gas in this region, as well as some oil," said Doctor Weamer, "and we plan to keep on drilling. Oil wells are not as numerous as gas wells, nor as productive. There are but a handful of oil wells—less than 10—and the production per well runs from one to two or three barrels daily. A drive through the country around Coldwater in all directions shows gas wells and pumphouses dotting the rolling terrain and pipelines laid across field, and now and then the tank and pump marking an oil well. One thing seems fairly certain—if gas is found in large commercial quantities, there will be no exaggerated boom, no getting the people of the region, for they are too wise to allow that to happen again."

In Bath Township, Allen County, O. T. Botkins and others' No. 4 well, 250 feet form the north line and 900 feet from the east line of the P. D. Driver farm, Section 12, is credited with an initial production of 5 bbls. Top of sand at 1,323 feet and drilled 57 feet into the sand.

The Bachelor Oil Co. drilled in No. 11 well, 1,400 feet from the north line and 250 feet from the west line of the William T. Seibert farm, in the southeast quarter of Section 3, Salem Township, Auglaize County, the first 24 hours bringing forth 13 bbls. of oil. The Trenton sand was reached at a depth of 1,139 feet and drilled to a total depth of 1,182 feet.

In Washington Township, Sandusky County, the Home Banking Co. and others' No. 16 well, 200 feet from the north line and 1,200 feet from the west line of the Sophia Myerholtz farm, Section 29, pumped 6 bbls. at a total depth of 1,325 feet. Top of sand was found at 1,265 feet, of 60 feet in the sand. In Jackson Township, same county, the same company's No. 5 well, 200 feet from the north line and 700 feet from the east line of the S. M. Klotz farm, Section 4, tapped sand at 1,303 feet and drilled 50 feet in the sand, the well showing 2 bbls.

In the Roundhead Field of McDonel Township, Hardin County, the Cockley Oil Co.'s No. 2, in the northeast corner of the Floyd Stalder farm, is credited with natural producer with a 24 hours production of 45 bbls., at a total depth of 1,447 feet or 31 feet in the sand.

The wildcat of the Detroit-Cleveland Oil & Gas Co., 250 feet from the north line and 700 feet from the east line of the William Russell farm, struck the top of sand at 1,500 feet and drilled 45 feet into that formation, to a total depth of 1,545 feet, when the well was reported dry. This venture is several miles from the Payne Field in the same county.

Indiana

The test of A. B. Bement on the Charles McAtee farm, Section 13, Clay Township, Pike County, 7 miles west of Petersburg, Ind., drilled to a depth of 961 feet, getting a producer estimated at 25 bbls. in the Rumble sand. In the same section, the Murphy Oil Co., drilling on the Stewart Brothers farm, 350 feet west of the McAtee well, got a dry hole in the Rumble sand and is drilling down to 1,500 feet in search of oil in the Oakland City sand. The Loveless farm well, 1,500 feet south of the Stewart well, was drilled down to a depth of 1,510 feet to the Brown sand, and is reported making 15 bbls. daily. At a depth of 900 feet, the drillers on the Stewart well found a 5-foot vein of coal instead of oil and it is said that this is the deepest coal vein ever found in Pike County. Heavy rains throughout southwestern Indiana have relieved the drouth situation and a number of drilling rigs that were shut down for water will resume drilling.

Advice from Washington, Ind., is that the Thoren Oil & Gas Co. of Chicago, Ill., has drilled in and shot its wildcat venture on the Gus Wonder farm, in Section 28, Veale Township, Daviess County, and that it is doing 25 bbls. a day. The well is quite a distance from the nice production found in Section 21, same township, by the Geiger Oil Co., as well as the Peek Oil Co., and may mean a connection between that pool and the new well on the Wonder farm. The territory in which this test was drilled has been passed up and condemned in the past, but the starting of the wildcat brought about an active leasing campaign by other interests and they figure they are sitting pretty unless the find is a fluke one. J. E. Thorn, president of the company owning the test, says that before winter sets in his company will try and bring in at least 20 wells, providing the future wells prove productive. The well is just a mile south of the Geiger-McDougal production, which makes it look more interesting for the closeness of the production and the good wells that have been found in the pool a mile to the north. Thoren company's well caused considerable excitement and talk is that nearby leaseholders are making preparation to test out the intervening territory between the Wonder farm and the rich pool in Section 21.

Considerable interest is centered these days on Enlow and others' wildcat drilling near the sand on the F. Burkett lease, Section 24, White River Township, Gibson County, 4 miles from the Min Street Ferry across the Wabash River from Mt. Carmel, and just south of the White River, also west of the venture on the W. F. Chipman farm in the same section, which had a fair showing of oil. The test is approximately 8 miles south of the Allendale Field, Wabash County, Illinois. The well shows quite a raise in the depth of the formations found in the Allendale Field. The test is on a block of acreage leased by John Enlow, who has a number of Mt. Carmel men

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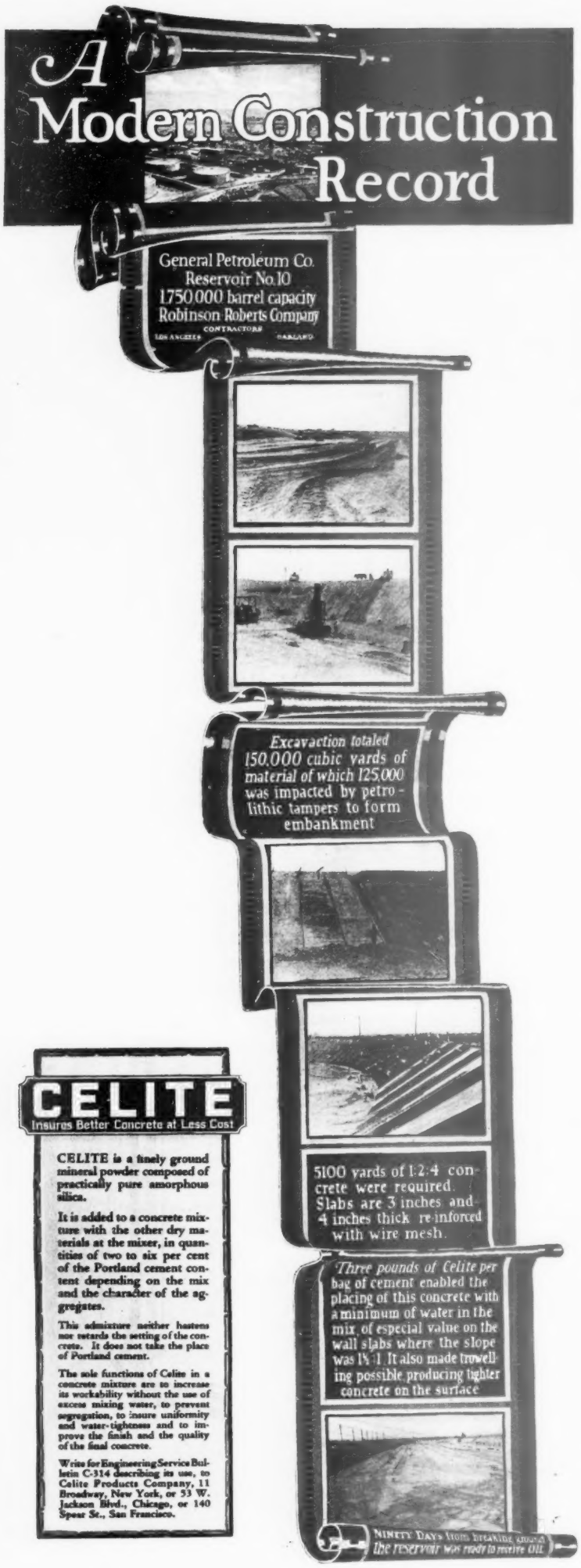
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interested with him in the enterprise. A block of 800 acres just east of the Enlow test has been taken up and if the Enlow well proves even a showing, it will mean a test upon the recent leased block which is held by operators doing development work on the Illinois side of the Wabash River from Allendale.

Illinois

With the point reached where a number of wells are just about due throughout the various parts of Wabash County, Illinois, in the vicinity of Allendale and other points, interest of oil men and others is pitched high these days, and operations continue on a wide scale. Several wells are reported due in the Allendale territory within a few days. This region, of course, has been the scene of more activity than elsewhere. In addition to the Enlow well on the Burkett farm, about 8 miles south of Allendale but on the Indiana side of the Wabash River, about due, the Henneberger and others' well on the Liddle farm, in the Friendsville area, is also said to be close to the pay sand. Work has been suspended temporarily on the Crump farm, in Lick Prairie Township, Wabash County. The Bell Brothers wildcat on the Fisher farm, east of the town of Bellmont, which is being made a deep test, is reported at a depth a round 2,200 feet and drilling. Announcement comes from Grayville that drilling operations have been suspended by the Grayville Oil Syndicate at its test on the John M. Helm farm in French Creek Precinct of Edwards County, at an approximated depth of 2,200 feet, but work will be resumed at once.

In Wabash Township, Wabash County, Mayhugh and others' No. 7 on the Kogan heirs farm, Section 2, Wabash Township, Wabash County, is reported showing for 80 bbls. Rahl and others are drilling their test on the A. A. Gher farm, Section 6, the closest test to be made to the Wabash River, being east of the recent completion on the W. O. Johnson farm, and south of Koker Creek. Adams Corner Oil Co. is drilling a second test on the W. O. Johnson farm, Section 6. Tracy Oil Co. is starting a second test on the Tracy heirs farm, Section 12, and south of No. 1 same farm. Weirbacy, Young and others are drilling No. 5 Kate Keyser farm, Sections 6 and 7, and putting in a rig for No. 6, same farm. Allendale Oil Co. is drilling No. 1 on the Joseph Keyser farm, Section 13, a short distance southeast of Allendale. Smith, Hughes and others are drilling No. 1 on the Adam Shafer, Section 15, and a short distance southwest of Allendale. Should this well prove a producer it would make a nice extension to the present producing area of the Allendale Field. The Mahutska Oil Co. is nearing the pay with No. 5 Mack Madden, Section 7.

In the north end of the old development in Parker Township, Clark County, Charles E. King and others' No. 7 well, 220 feet from the north line and 600 feet from the west line of the N. B. Lee farm, Section 32, pumped 4 bbls. at 420 feet. Albon and others are drilling an important wildcat venture on the Hodson farm, Section 17, Wabash Township, Clark County, about 2 miles east and a little north of Marshall.

In Martin Township, Crawford County, the Frost Oil Co.'s No. 4 well, 175 feet from the south line and 960 feet from the west line of the A. W. Mann farm, at a depth of 975 feet.

In Dennison Township, Lawrence County, the Ohio Oil Co. abandoned No. 11 on the William Seed No. 1 farm, Section 21.

The Illinois State Geological Survey reports some wildcat completions over various parts of the state. In the Plymouth-Colmar area of McDonough County in the northwestern part of Illinois, the Ohio Oil Co. and Bacon's No. 1 on the C. B. Allison farm, Section 22-5-4w, on the Tennessee structure, was reported dry after passing through the St. Peter sand at 904 feet. Same company's No. 1 on the Clayton farm, same field, was dry at 615 feet, which was in the Hoing sand.

East of Sparta, in Randolph County, Holze and others drilled a dry hole in a test on the T. C. Foster farm. In Section 1-4-6, same area, E. G. Mason and others are drilling a test on the Andrews farm. This well missed the Sparta sand; drilling at 973 feet; set 6⅝-inch casing.

In Nameoki Township, Madison County, Goodrich Brothers' No. 1 on the Goodrich Brothers farm, Section 1, was reported at a depth of 2,020 feet, where it has two strings of tools in the hole under 500 feet of cavings. In Pin Oak Township, same county, Section 33, the Assembly Oil & Gas Co. is underreaming at 650 feet in its test on the Gusewillie farm.

In Section 26-1n-10w, St. Clair County, the Prairie Oil & Gas Co. is plugging its test on the George Dyroff farm at 2,903 feet.

In Hickory Point Township, Macon County, the wildcat of Powers and others on the A. Parish farm, Section 33, is shut down at 1,820 feet.

In Holland Township, Shelby County, A. L. Ginther is drilling a test on the W. Prosser farm, Section 25, but has shut down at 825 feet to raise funds.

In Section 18-15n-9w, Morgan County, P. C. Irwin and others have rigged up for a test on the Conklin farm.

Central Pike County

Alfred H. Bell, of the Illinois Geological Survey, has this to say of the prospects of Pike County, Illinois:

Along with the active search for prospective oil territory remote from developed fields there may be a tendency to overlook possibilities still existing in areas which have been exploited in the past and which, from a superficial view, appear to be exhausted. The Pittsfield-Hadley anticline in central Pike County was at one time the scene of an extensive drilling program, but in recent years this territory has been inactive. Certain considerations set forth below seem to warrant further drilling in this area.

Structure—The Pittsfield-Hadley anticline has been described by H. N. Cordyell. A line of folding extends northwest-southeast across parts of Lewis County, Missouri, and Adams and Pike Counties, Illinois. In Pike County it bends to the east and culminates in a dome centering in Section 21-5s-4e, 4 miles west and 1 mile north of Pittsfield. Between Pittsfield and Hadley a series of small domes are arranged along a fairly well defined axis and some others lie to the south of the axis.

Development

Gas was discovered in Pike County in 1886 in Section 1-5s-5w. By the close of 1912, 100 wells had been drilled, 39 of which were productive in 1918. At that time only those wells enclosed by a 590-foot contour had sufficient gas supply for all seasons of the year. Between the 590-foot and the 500-foot contours the supply of gas was sufficient only for cooking and lighting. Coryell concluded in 1918 "the field has been thoroughly exploited. The productive area is bounded on all sides by dry wells and it is decreasing in size from year to year by failure of some of the wells that are near the margin."

Producing Horizons.—The Gas Rock. The porous stratum forming the reservoir for the gas is a yellowish brown dolomite, probably belonging to the Niagaran.

The Hoing Sand.—This sand is the producing horizon in the Colmar Field, 45 miles to the north of the area under consideration. Its stratigraphic position is beneath the "second lime" and at the base of the Niagara formation. Its areal distribution is spotty and it is absent over considerable areas. One well is the Pittsfield-Hadley gas field in southwest quarter of Section 21-5s-4w, had three feet of Hoing sand. About 12 miles to the north a well in the northeast quarter of Section 8-3s-3w had 18 feet of broken Hoing sand.

Future Prospects

The Pittsfield-Hadley anticline has been thoroughly tested with respect to the Niagara gas rock. The presence of the Hoing sand in the well in Section 21-5s-4w suggests the possibility that

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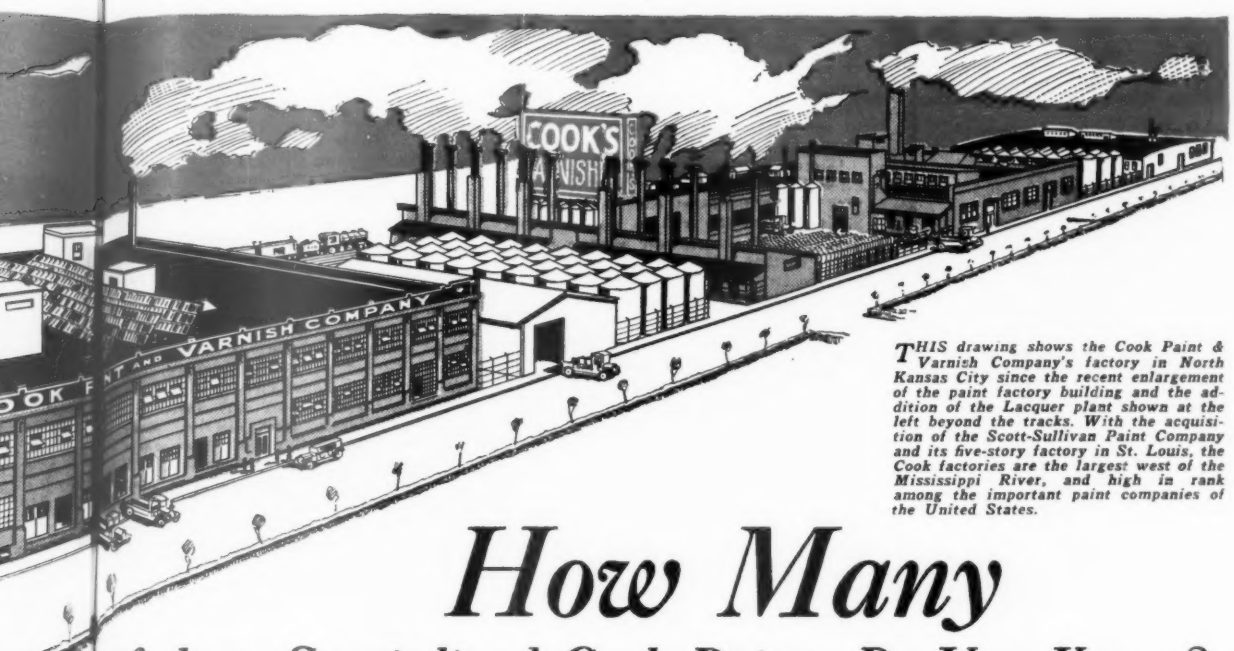

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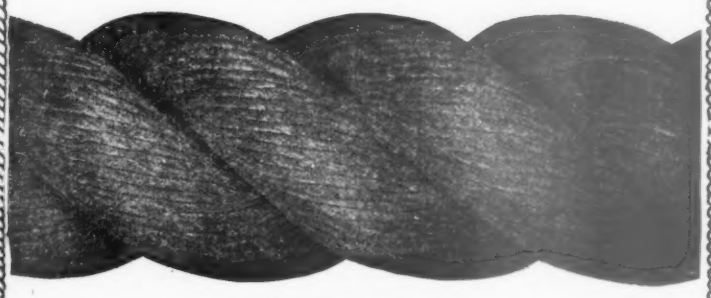

Worthy of Trust

lens-like sand bodies may be found elsewhere on the flanks of the domes in this vicinity. With the favorable structural conditions that obtain here it seems probable that oil accumulation may have taken place provided that there is an impervious stratum between the Hoing sand and the gas rock. Sufficient data are not at hand to decide this important point. For that reason the area appears to merit further testing with the drill. Successful drill tests in this area would suggest the practicability of similar tests in other areas, where analogous conditions are known to exist.

One of the most favorable locations for a test is between the summit of the structure in the northeast quarter of Section 21-5s-4w, and the well in the southwest quarter of the southwest quarter of the same section where Hoing sand was found. Other locations on the flanks of the domes such as near the center of Section 19 and near the center of Section 17-5s-4w, have similar possibilities.

Since Hoing sand was found in the well in Section 8-3s-4w, it is considered that some of the surrounding area has prospects for production. The structural conditions here are less favorable than in the area of the Pittsfield-Hadley anticline. The dips, which are comparatively gentle, are from 10 to 20 feet per mile. The most favorable locations for future tests will be at positions higher on the structure than the old well—possibly to the west of it about a quarter of a mile, and also 1½ miles south of it in the south half of Section 17-3s-4w.

In making future tests it would be advisable to take samples frequently from the top of the Niagara "cap rock" to the top of the Maquoketa shale which underlies the gas rock and Hoing sand. The study of such samples is of great importance in estimating the advisability of further tests, even though the well should not be a producer.

Central Ohio

Very little was accomplished in the central Ohio gas belt during the week, there being a shortage in completed wells but not in drilling wells and new work under way. The gas companies are very busy and keep the drill moving, not alone in defined areas but on the outer edges as well.

In Chatham Township, Medina County, E. R. Edson Son Co.'s No. 23, on the Carl G. Packard farm, Lot 4, Section 14, is reported close to 3 bbls. at 400 feet.

In Carthage Township, Athens County, the Logan Gas Co.'s second test in the southwest corner of the S. A. Wilson 180 acres, Lot 35, failed to find any oil or gas in the Berea sand.

KENTUCKY-TENNESSEE

(Continued from Page 58)

at 20 bbls. initial. No. 5 on this lease was a duster.

Bayless and others drilled a duster at a test on the E. L. Farmer 190 acres, in both the Jett and Barlow sands.

The Leeper Oil Co. made a quick job of completing No. 4 on the H. D. Brown 205-acre farm, in the Pellville area. The well was started on Tuesday and drilled into the Jett sand on Friday, where a good pay was found and the well given a shot and estimated at 20 bbls. initial. It is 400 feet northwest of No. 2 on the same farm.

The Security Oil Co.'s test on the J. W. McDaniel 66 acres was dry in the Jett sand and drilled on down to the Barlow where it is said to show for a producer for about 10 bbls. initial; anyway the test is said to come up to expectation of the owners who are delighted over the showing made.

The White Plains Oil & Gas Co. is due to bring in its No. 3 on the John C Ward farm.

C. E. Daugherty and others' No. 2 Neel farm has been testing out for several days and good for only 2 bbls.

Wells due for completion shortly in the Owensboro district are: Vicion Oil Co.'s No. 10 O. T. Burdette 35 acres; Penn-Indiana Oil Syndicate's No. 9 Laura Mercer 84 acres; same company's No. 1 Orvis Greer 190 acres; Stebbins & Co.'s No. 2 Allie Evans farm; J. W. Loman, trustee's, No. 5 J. B. Ellis 50 acres, and Penn-Indiana Oil Syndicate's No. 3 G. A. Kelley 260 acres.

The Wood Oil Co. is delayed with its No. 5 on the J. U. Bartley 189 acres, on account broken shaft. The well is down 725 feet.

Johnson & Engle are rebuilding a broken mast at their test on the L. L. Trodgen 90 acres. The well has reached a depth of 840 feet.

Other Developments

In the Sulphur Creek Pool of southwestern Cumberland County, the Southern Producers Co.'s No. 10 on the A. A. Huddleston farm had an initial production of 40 bbls. from a depth of 780 feet. In the Holliday Pool, in the Crocus Creek area, Wood, Haislett & McLennon's No. 3 E. H. Brockman, reported down 410 feet. On Pulsey Creek, W. S. Raydure & Son's No. 1 T. B. Hogan farm, down around 200 feet. In the Kettle Creek district, Graves Brothers and others' No. 1 J. Jones farm, drilling near pay sand. Connell, Zook and others' No. 2 R. L. Blythe, same district, down around 500 feet. Crawford and others are drilling around 400 feet at No. 2 Elliott farm, in the Crocus Creek Pool.

In the Bowling Green Field, of Warren County, the only completion reported was a dry hole drilled by the Palmer Oil Corp. in No. 4 on the J. Q. Adams farm, at a depth of 1,065 feet.

MICHIGAN FIELDS

(Continued from Page 58)

drilling by Charles Murrin on the west bank of Tittabawssee River, a short distance north of State Street, in Section 13, Thomas Township and about 5 miles west of production, is also getting near production depth. The third well is that of J. H. Shaltry and others on the Fred Pagel lots, half a mile in advance of production. Should the three wells prove commercial producers it will mean an extension to the northwest of something like 5 miles from the field and the Murrin well will mean a 5-mile extension to the west of production.

The Sun Oil Co. is erecting three new rigs. One is on the Doctor Bradshaw farm, being the south half of the south half of the northeast quarter of Section 10, and not far from the Fisher farm well of the Ohio Fuel Corp. One is on the C. J. Rabe farm, in the south half of the northeast quarter of the southwest quarter of Section 11 and a third on the William Scherzar farm, a short distance south of the Rabe farm location.

The Gardner Petroleum Co. is reported at a depth close around 2,500 feet and drilling in solid lime without a break from 2,331 to 2,495 feet, in its wildcat on the Schwannecke farm, on the Hess Road, in Section 33, Buena Vista Township, and southeast of Saginaw. It is being drilled to the Dundee sand which it expects to reach close around 3,000 feet.

The Valley Oil & Gas Co. is drilling its second test, although it is No. 1 well on the Charles Priess lots, near Michigan Avenue and Madison Street in Carrollton Township.

Late Operations

The Ohio Fuel Corp. is moving the derrick and tools from its No. 1 on the Ernest Fisher farm, Section 11. Saginaw Township, to the second location on the same farm. No. 1 is swabbing 13 bbls. a day.

The Bliss Petroleum Co. is drilling Nos. 2 and 3 on the Casper Ulrich farm, Section 14, where it has one producer, with a location staked for No. 4. No. 2 struck the Marshall sand at 602 feet and is going along nicely at last report, while No. 3 is close to the Marshall formation.

The Saginaw Prospecting Co. is rigging up at its No. 1 on the Fred Reamer property, near Hermansau and Shattuck roads. This company is erecting a rig for a test well on the Hlavacek farm, 2 miles southwest of Midland, the county seat of Midland County, to the northwest of Saginaw County and directly west of Bay City.

The Sun Oil Co. has been delayed by a

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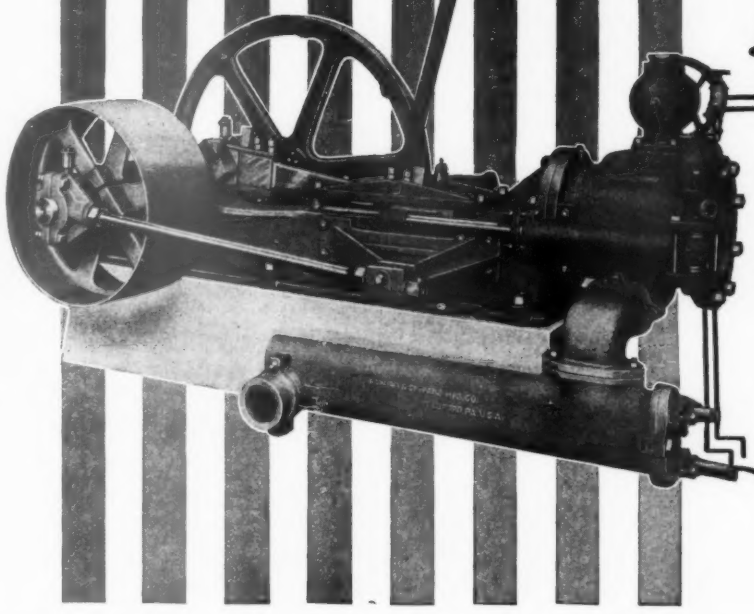

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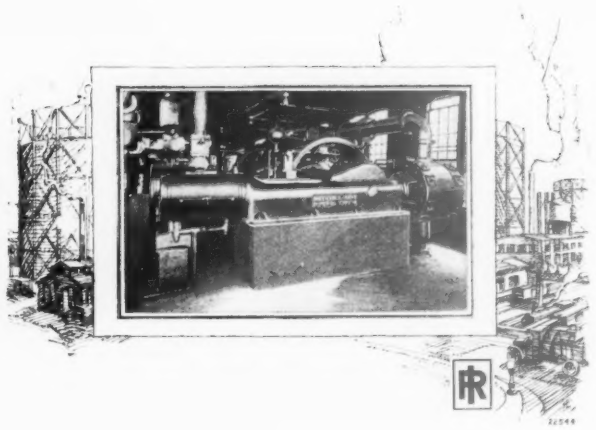

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fishing job in the Marshall sand at about 700 feet in its test on the Stelzriede farm, over half a mile north of its production on the Weiss farm, and half way between the Weiss well and the dry hole of the Bliss Petroleum Co. on the Carl Boldebuck farm.

The Superior Oil Co.'s well on the Spatz lease, is reported by Miles J. Purcell, secretary of the company, as doing from 35 to 44 bbls. daily, but is expected to settle to a 20-bbl. pumper. No. 2 has been located and a rig will be set on the lease within a few days.

Samuel Alexander, well known drilling contractor of Sistersville, W. Va., is looking over the Saginaw oil prospects.

Mexican Shipments In June More Than Million Above May

By George Blardone

TAMPICO, Mex., Aug. 13.—Shipments of petroleum from Mexican ports of primary clearence during the month of June totaled 7,346,164 bbls., a decrease of over 1,000,000 bbls. from the movement in May of the current year, and, further, a decrease of 1,564,688 bbls. from the June movement of 1925. Tampico dispatched 7,307,323 bbls. last month, and Tuxpam 38,841 bbls.

The movement, in detail, for the month under discussion follows:

FROM TAMPICO

June	Rig	Vessel, Destination—	Bbls.
1	Ss	Norman Bridge, Houston	*41,155
1	Ss	O. D. Bennett, Jacksonville	*47,727
2	Ss	I. C. White, New York	*69,144
2	Ss	Pioneer, New York	*52,240
2	Ss	S. M. Spalding, Rio Janeiro	†7,379
3	Ss	S. M. Spalding, Rio Janeiro	*54,101
3	Ss	Invergarry, Lizard f/o	*56,547
4	Ss	Princeton, New York	*48,285
3	Ss	J. O. Boyd, Tampa	†19,103
5	Ss	Hallhill, Mobile	*60,651
6	Ss	E. L. Doheny, New York	*61,656
6	Ss	W. H. Doheny, New Orleans	67,617
7	Ss	Josiah Macy, New York	63,712
8	Ss	C. A. Canfield, New York	*65,682
8	Ss	Meline, Boston	*63,852
8	Ss	H. G. Wylie, Houston	*40,784
9	Ss	F. H. Wickett, Providence	*78,613
9	Ss	Norman Bridge, Galveston	*40,281
10	Ss	Invergoil, Lizard f/o	*56,895
10	Ss	Mantilla, Houston	*51,003
10	Ss	Mendocino, Baltimore	63,716
11	Ss	Mantinicock, New York	*77,274
11	Ss	C. E. Harwood, Jacksonville and Miami	†34,509
12	Ss	Mirlo, Boston	*63,630
13	Ss	Dist. Columbia, New York	*69,943
13	Ss	J. M. Danziger, New York	*68,648
13	Ss	O. D. Bennett, Jacksonville	*48,455
15	Ss	Norman B'dge, Pt. Tarafa, C.	*40,537
15	Ss	Princeton, Key West	*48,825
15	Ss	H. G. Wylie, Galveston	*40,943
17	Ss	M. Luckenbach, Jacksonville	*50,295
17	Ss	Republic, Baltimore	†47,998
18	Ss	Wm. Green, New Orleans	68,431
18	Ss	F. R. Kellogg, Providence	*65,707
19	Ss	Cerro Azul, New York	*79,254
19	Ss	Inverardor, Lizard f/o	*50,521
20	Ss	G. G. Henry, New York	*65,775
20	Ss	W. H. Doheny, New Orleans	67,251
21	Ss	Harold Walker, Portland	*68,176
21	Ss	J. O. Boyd, Tampa	†18,296
22	Ss	Mantilla, Galveston	*55,259
22	Ss	Caloria, Lizard f/o	*59,368
23	Ss	Mevania, New York	*68,883
24	Ss	Kennebec, Lazard f/o	*54,070
25	Ss	P. H. Harwood, New York	*65,815
26	Ss	O. D. Bennett, Baltimore	46,206
27	Ss	I. C. White, New York	**68,339**
27	Ss	Malacca, New York	*71,672
28	Ss	Cerro Ebano, New York	*76,017
28	Ss	C. A. Canfield, Providence	*65,621
29	Ss	C. E. Harwoods, Jacksonville	*32,764
29	Ss	Elisha Walker, New York	*69,420
30	Ss	Montana, Boston	*61,728
		Coastwise deliveries	†22,132
		Coastwise deliveries	*269,825
		Bunker deliveries (vis.)	50,542
		Total	3,322,272

By Transcontinental Petroleum Co.

1	Ss	Malabar, New York	*76,114
4	Ss	Dillwyn, Porto Rico	*65,273
5	Ss	Agwihavre, New York	87,041
7	Ss	Malacca, New York	70,670
7	Ss	Agwimex, New York	82,085
11	Ss	Durango, New York	*66,701
12	Ss	Hugoton, Baltimore	69,829
15	Ss	Glenpool, Charleston	55,485
17	Ss	Pioneer, Cuba	46,969
21	Ss	Albertolite, Montreal	80,765
23	Ss	Muskogee, Montreal	66,002
25	Ss	Josiah Macy, Baltimore	60,254
26	Ss	Agwimex, New York	87,020
27	Ss	Agwilake, Baltimore	81,045
28	Ss	Agwihavre, New York	84,080
30	Ss	Matinicock, New York	*75,293
		Bunker deliveries	63,936
		Total	1,218,562

By Mexican Eagle Oil Co., Ltd.

5	Ss	San Gerardo, Nassau f/o	*85,909
7	Ss	Mary Luckenbach, Pt. Tampa	*49,189
8	Ss	San Zotico, Key West	*53,339
11	Ss	San Leon, Key West	*57,903
17	Ss	San Macedonio, Nassau f/o	†38,869
18	Ss	San Leonardo, Nassau f/o	*48,402
18	Ss	Susan Maersk, Belize, C. A.	†4,361
21	Ss	Halsey, New York	*72,105
28	Ss	San Zotico, Mariel, Cuba	*52,107
29	Ss	Essex Druid, South America	†22,621
29	Ss	Essex Druid, South America	*1,065
		Coastwise deliveries	†185,935
		Coastwise deliveries	*46,328
		Bunker deliveries	44,790
		Total	762,923

By Cia. Mexicana-Holandesa La Corona, S. A.
(Royal Dutch-Shell)

1	Ss	Agwisun, New York	74,911
1	Ss	Glenpool, Charleston	54,836
1	Ss	A. E. Watts, New Orleans	67,422
2	Ss	Vaarli, Maurer, N. J.	58,018
5	Ss	Lacuna, New Orleans	53,164
7	Ss	San Zeferino, Nassau f/o	51,154
16	Ss	Lacuna, Nassau f/o	50,411
26	Ss	Golaa, New Orleans	54,167
28	Ss	Scott, Minstrel, Nassau f/o	58,677
		Bunker deliveries	38,219
		Coastwise deliveries	11,987
		Total	573,966

By Mexican sinclair Pet. Corp.

8	Ss	Calorfa, La Ceiba, C. A.	30,264
10	Ss	Harry Farnum, New Orleans	30,310
12	Ss	Madrono, Cienfuegos	55,838
16	Ss	Gene Crawley, New Orleans	30,631
21	Ss	F-Sulphur, Freeport	18,859
22	Ss	Harry Farnum, New Orleans	30,406
23	Ss	Madrono, Matanzas	55,877
30	Ss	W. L. Connelly, Puerto Barr, C. A.	30,316
		Bunker deliveries	14,960
		Total	297,461

By The Texas Company

10	Ss	Texas, Port Neches	57,810
16	Ss	Pennsylvania, Providence	*59,390
17	Ss	Georgia, Marcus Hook	47,872
18	Ss	Texas, Port Neches	52,753
18	Ss	Texas, Port Neches	*7,655
19	Ss	Louisiana, Cienfuegos	26,517
		Bunker deliveries	8,636
		Total	260,632

By La Espuela Oil Co.

4	Ss	F-Sulphur 6, Freeport	25,753
5	Ss	F-Sulphur 1, Freeport	19,643
9	Ss	F-Sulphur 6, Freeport	27,299
10	Ss	F-Sulphur 1, Freeport	20,613
14	Ss	F-Sulphur 6, Freeport	28,147
15	Ss	F-Sulphur 1, Freeport	18,426
20	Ss	F-Sulphur 6, Freeport	27,497
25	Ss	F-Sulphur 6, Freeport	27,263
26	Ss	F-Sulphur 1, Freeport	18,420
30	Ss	F-Sulphur 6, Freeport	26,865
		Total	239,926

By Mexican Gulf Oil Co.

2	Ss	Mirita, Galveston	54,746
7	Ss	Mirita, Savannah	53,163
23	Ss	Mirita, Galveston	55,776
		Total	163,685

By Pierce Oil Corp.

10	Ss	Wm. Isom, Baltimore	*29,928
21	Ss	Torres, Philadelphia	*48,610
29	Ss	Sucrosa, Baltimore	*40,974
		Bunker deliveries	10,613
		Total	130,125

By Mexican Atlas Pet. Co.

4	Ss	Nelson, New York (top off)	6,862
18	Ss	Cassimir, New York	45,190
23	Ss	Nelson, New York	33,482
		Bunker deliveries	8,871
		Total	94,405

By East Coast Oil Co.

10	Ss	Torres, Galveston	50,746
20	Ss	Caloria, New Orleans	30,671
		Bunker deliveries	5,822
		Total	87,233

By Empire Gas & Fuel Co.

26	Ss	Hoven, Boston	69,543

By Panuco Boston Oil Co.

30	Ss	Topila, Philadelphia	48,859

By Mexican Oil Products Corp.

4	Ss	Nelson, New York	32,362
23	Ss	Nelson, New York (top off)	6,317
		Total	38,620

FROM TUXPAM

By Mexican Eagle Oil Co., Ltd.

2	Ss	San Gaspar, Nassau f/o	*18,621
6	Ss	San Gerardo, Nassau f/o	*20,220
		Total	38,841

June Summary

From Tampico	7,307,323
Tuxpam	38,841
Total, June, 1926	7,346,164
Total, June, 1925	8,910,852
Decrease, June, 1926	1,564,688

Division of Movement

To United States	5,365,417
Cuba and W. Indies	650,108
Mexican coastwise	536,207
United Kingdom	277,401
Canada	146,767
South America	85,166
Central America	64,941
Bunkers (to bal.)	220,157
Total	7,346,164

Classes

Crudes	2,940,586
Topped crudes	3,824,581
Distillates	360,860
Bunkers (to balance)	220,157
Total	7,346,164

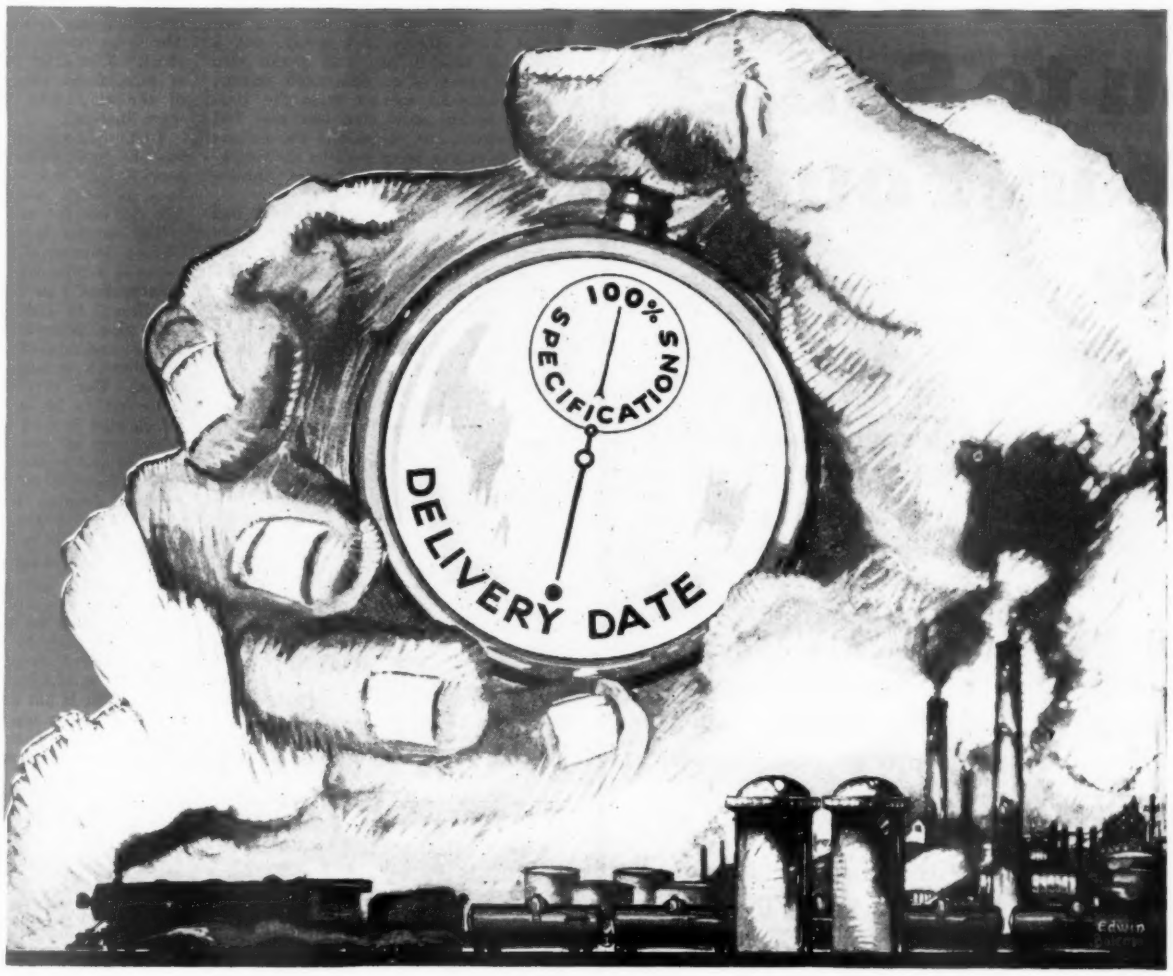
(Note: *indicates topped crudes; †indicates distillates.)

INCREASE BENZOIL OUTPUT

A large increase in benzoil production will result from enlargements being made at the Clairton, Pa., works of the Carnegie Steel Co. A total of 366 new ovens are to be added. It is estimated that the benzoil production of the company will be increased 2,000,000 gallons.

DRILLING IN MISSOURI

It is reported that a test hole is being drilled near Macon, Mo., to a depth of 300 to 400 feet by the Ohio Oil Co. A study of the formations will be made by geologists. The Ohio company brought in the oil field in Illinois at Marshall and it is the belief that somewhere in Missouri there is a feeder for this field.



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MIDGET ROTARY IN CADDO PARISH DIGS HOLE AT FIFTY CENTS A FOOT

By James H. Dameron

SHREVEPORT, La., Aug. 14.—Mix a little ingenuity with one part of a discarded truck, throw in a pump, add a couple of fishtail bits and shake well with the power of an automobile engine.

That isn't an extract from the Bartenders' Guide or a disguised post-Volstead cocktail but the salient ingredients in a baby rotary being used by the Southwestern Gas & Electric Co. of Shreveport, La.

A few years ago the Southwestern had the distinction of bringing the first heavy rotary equipment into this district. Now it is adding to that distinction by introducing the midget in drilling outfits.

The youngster of the rotary family can dig a hole in short order at the surprising low cost of 50 cents a foot. And while it was designed primarily to drill water wells for that company it opens the doors to unlimited possibilities in validating government leases in the Rocky Mountain area at low cost and in drilling shallow tests for geological information.

The machine was designed and built by H. C. Otis, in charge of production for the Southwestern and the Bethany Oil Co., a subsidiary of the Southwestern.

Auto a Big Factor

In a nutshell, the rotary is a ring gear and pinion of a truck. The gear is welded solid with a square drive boxing in the center. The "mud hog" is a 3-4 Fairbanks-Morse pump connected to the rotary with a 1¼-inch nipple and driven by a drive pulley on the pump shaft.

Power is supplied by jacking up a rear wheel of an automobile, removing the hub cap and attaching a drive pulley and connecting with a belt to the pulley on the pump shaft. One inch double X pipe is used for drill pipe and the grief joint is a squared joint of double X pipe. Ordinary derrick flood one-inch hose is used for the rotary hose. The derrick is made by raising two joints of 2-inch pipe and a hand winch is used to pull out of the hole. In operation the rotary makes around 100 R.P.M. and with ordinary digging it can grind out 100 feet of hole daily.

Necessity the Mother, Etc.

Like in most cases, necessity was the mother of Otis' invention. The Southwestern wanted several water test holes drilled on its property in east Texas. A hand driven rotary was rigged up, and the task started. The slowness of that method and a short while at the hand rotary convinced Otis that an improved method was sadly needed. It was then he started work on the baby rotary.

The rear gear and pinion was removed from an old truck. A welder filled in the center of the ring gear making it solid and then cut a square boxing in the center. An old 3-4 Fairbanks-Morse pump was reclaimed for service as a "mud hog." The pump was connected to the rotary with a 1¼-inch nipple. By removing a couple of pins from the nipple the pump can be operated independently. The drive pulley is on the pump's drive shaft. The grief joint, a squared joint of pipe, fitted snug in the drive boxing of the ring gear when drive bushings were inserted.

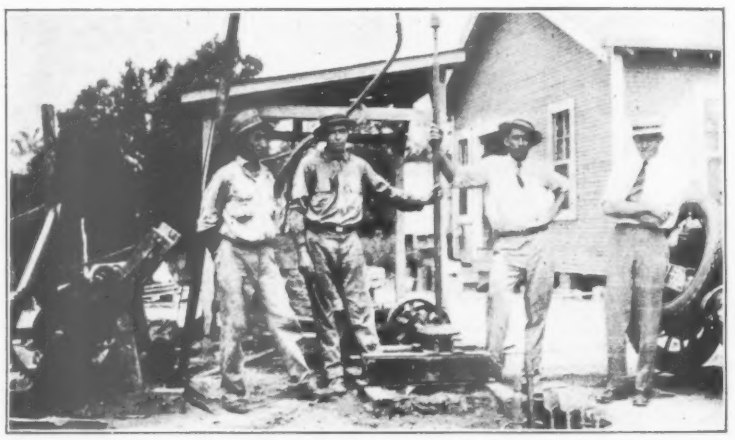
In pulling out of the hole and bailing an old hand winch was brought into service. It can either be operated by hand or with power from the automobile driving the rotary.

The derrick is easily constructed. A 35-foot telephone pole or a couple of joints of a pipe can be used for a derrick. Otis prefers pipe because of the ease in handling. In ordinary holes he uses 2-inch pipe, screwing the two joints together and standing the pipe upright. The derrick is made fast with three guy wires. For greater safety and when holes are to be drilled around 400 feet 4-inch pipe is used for the derrick.

On top of the pipe an L-joint is screwed and a short length of pipe is extended from it on which to secure the pulley. Another pulley is anchored at the bottom of the derrick which rests a short distance in front of the winch.

Bits Another Feature

In spudding and going down to set the first string of casing a 5⅜-inch fishtail bit is screwed on a 2½-inch shank reduced to attach to the drill stem. The hole is bored down to around 75 feet and a string of 4-inch casing is set. Then a 3-inch bit is put on and the hole drilled on down to the top of the sand where a second string of casing is set and the well finished with smaller tools.



Baby rotary ready to do its stuff.

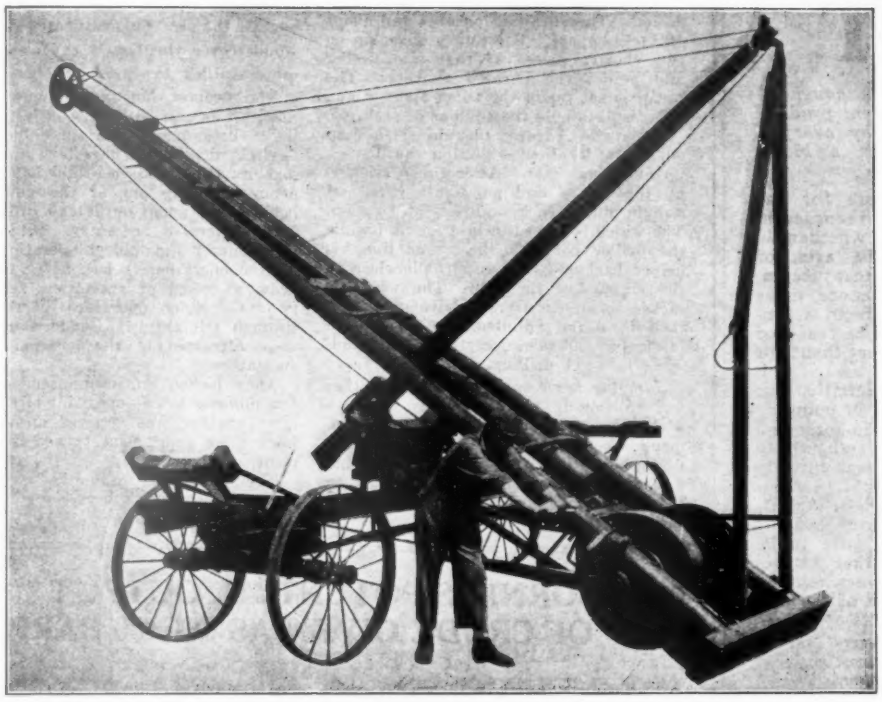
The midget bits are another feature of the outfit. All save the large bit are made from old fishtail bits split in two and forged into smaller bits. A special rock bit with six cutting edges on it was designed to hurry through hard digging. It is a long tubular bit and was designed and made in a machine shop.

Water and fuel supplies are the least of the drillers' worries. Handicapped by a water shortage the driller can operate on a barrel a day if necessary. Instead of running returns into a slush pit and losing a great amount of water the returns can be caught in a tub and the water used over and over as the cutting settles in the bottom of the tub. If plenty of water is close by a small slush pit is dug.

S. A. Womack, field superintendent for the Southwestern and operator of the baby rotary, claims he can tell within one inch at what depth the bit goes into a new formation by watching the returns. A 4-inch T-joint is screwed on top of the casing. A cuttings box catches the returns as they come from the hole and retains them. The box is about the size of a cigar box with fine screen in the bottom.

Bailing is another cinch according to the crew. Frequently the water wells

CUSSING ROUSTABOUTS



Helps many oil field foremen to blow off steam and bring the temper back to normal, when a valuable well has stood idle too long or has been injured in pulling. It doesn't help the well or bring up production. More than likely the roustabouts were not to blame but were doing the best they could with the pulling equipment they were forced to use. Why not furnish your lease with an IRON KING pulling machine and absolutely know that when a well is not pulling speedily and economically the roustabouts alone are to blame?

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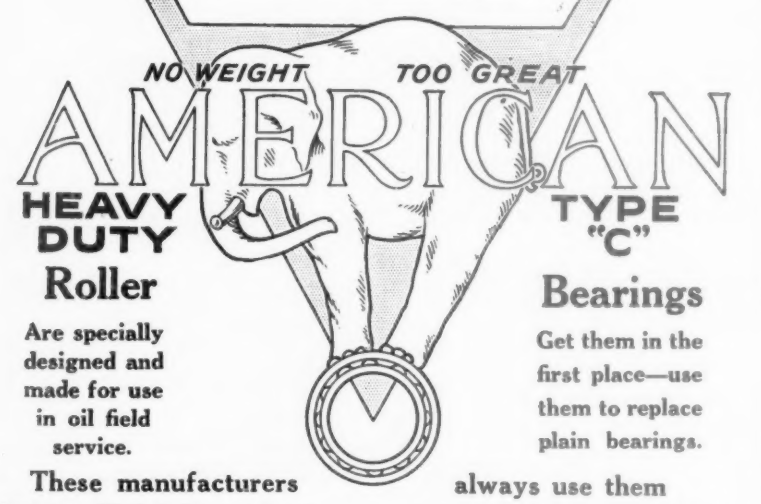

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AMERICAN ROLLER BEARING CO.
PITTSBURGH, PENNA.

are bailed to test the water. The bailer is nothing more than a 1-inch joint of pipe with a 1-inch check valve on the bottom. One small line serves for the bailing line and in pulling out of the hole.

A couple of short pieces of 2x3 timbers are the requirements for the rig foundation. They are laid parallel and about 12 inches apart. The rotary is set up on two shorter pieces of that size timber and across the parallel timbers. The pump is set up in the same manner and a few spikes hold the equipment securely.

About the hardest task in setting up on a new location is getting the derrick up and made fast. After the derrick is up the rotary and pump are lifted off a light duty truck and set on location. The winch is moved in position and while the driller connects the water line his helper backs a light automobile close to the rig and anchors it. The wheel is jacked up and the main drive pulley attached. A few minutes more is required in rigging and then everything is in readiness to start drilling.

Jumping from one location to another and setting up for a new test requires little time if the distance to haul equipment is not too great. Drilling costs are negligible. The entire outfit, including a used truck and minor refinements to the outfit would cost approximately $700, according to Mr. Otis.

While no figures have been kept to show the actual cost of drilling a 300-foot hole it is estimated that such a hole can be drilled at a cost of 50 cents a foot or even less. The estimate is made after allowing only a few dollars for transportation. A driller and his helper can operate the rig. Otis estimates $25 a day would cover the crew's expense and all other drilling expense.

The deepest hole ever made by the midget was carried down 350 feet, requiring a little more than three "tours" of daylight drilling. The rotary apparently digs its hole with ease and has no tendency to jump out of the hole. Otis believes the small outfit can drill to the 500-foot level if necessary.

Whenever the midget operation is set up for operation it has never failed to draw a crowd of spectators. Recently two Colorado operators were going through Oil City in Caddo Parish and were attracted to the location by the spectators.

They looked on in amusement for a few minutes but as one joint of drill pipe after another was screwed on the grief joint their amusement turned to amazement.

Their comment was the stereotyped comment of many others—

"Well, I'll be d——."

CALIFORNIA'S POTENTIAL OUTPUT OF CRUDE GIVEN AS 661,400 BARRELS

That the potential production of California is greater than its actual production is well known to the oil industry, but the extent to which production has been curtailed is not so well known, and the accompanying table compiled by The Oil and Gas Journal's California staff correspondent, L. P. Stockman at Los Angeles, is illuminating.

A study of the table will show that in the big producing days of California, when the State was actually putting out nearly 860,000 bbls. a day from 8,922 wells, there were 2,210 wells in the State which were not permitted to produce and the potential production of these wells was 154,270 bbls. a day. The table shows that in September, 1923, California could have produced from its 11,132 completed oil wells a total of 1,013,020 bbls. a day. In January, 1924, much of this curtailed production was turned loose, only 1,313 wells being shut in with a capacity of 30,050 bbls. a day. As production continued to fall in the newer fields less and less oil was shut in until it fell to 12,500 bbls. a day in 481 wells. Then new production caused an increase in the shut-in wells and the amount of oil they were capable of producing. In June of this year the number of shut-in wells had increased to 2,022 and the shut-in production amounted to 52,419 bbls. In June California, which produced an average of 608,981 bbls., could have produced 661,400 bbls.

CALIFORNIA POTENTIAL PRODUCTION, 1923-1926 INCLUSIVE

	Marketable Daily Production	No. of Wells Producing	Curtailed Daily Production	Curtailed No. of Wells	Total Potential Daily Production	Total Potential No. of Wells
1923—						
January	530,885	9,077	82,064	1,866	612,949	10,943
February	586,670	9,094	98,936	1,877	685,606	10,971
March	632,522	9,058	98,936	1,877	731,458	10,935
April	689,865	9,043	103,936	1,902	793,801	10,945
May	694,689	8,847	154,270	2,210	848,959	11,057
June	755,570	8,859	154,270	2,210	909,840	11,069
July	814,906	8,808	154,270	2,210	969,176	11,018
August	852,903	8,882	154,270	2,210	1,007,173	11,092
September	858,750	8,922	154,270	2,210	1,013,020	11,132
October	792,787	8,617	111,551	2,579	904,338	11,196
November	746,595	8,590	111,551	2,579	858,146	11,169
December	706,427	9,396	111,551	2,579	817,978	11,975
Daily average	722,545	8,933	124,288	2,192	846,833	11,125
	Marketable Daily Production	No. of Wells Producing	Curtailed Daily Production	Curtailed No. of Wells	Total Potential Daily Production	Total Potential No. of Wells
1924—						
January	674,597	9,801	30,050	1,313	704,647	11,114
February	666,939	10,283	42,653	884	709,582	11,167
March	642,362	10,549	26,396	785	668,759	11,334
April	643,328	10,826	19,500	496	662,828	11,322
May	639,793	10,900	12,500	481	652,293	11,381
June	626,933	11,062	13,930	431	640,863	11,493
July	621,766	11,305	15,430	498	637,196	11,803
August	616,548	11,080	21,207	628	637,755	11,708
September	610,274	11,169	21,207	678	631,481	11,847
October	603,115	11,282	21,207	678	624,322	11,960
November	592,234	11,258	21,207	678	613,441	11,936
December	606,294	11,319	21,207	688	627,501	12,007
Daily average	628,588	10,903	22,089	687	650,677	11,590
	Marketable Daily Production	No. of Wells Producing	Curtailed Daily Production	Curtailed No. of Wells	Total Potential Daily Production	Total Potential No. of Wells
1925—						
January	604,622	11,380	22,251	661	626,873	12,041
February	602,494	11,446	22,251	640	624,745	12,086
March	600,839	11,482	22,251	640	623,090	12,122
April	598,655	11,590	22,251	640	620,906	12,230
May	607,107	11,628	22,251	640	629,358	12,268
June	642,938	11,680	43,452	1,270	686,390	12,950
July	658,421	11,579	43,452	1,270	701,873	12,849
August	677,599	11,675	43,452	1,270	721,051	12,945
September	668,759	11,093	61,103	1,901	729,862	12,994
October	645,648	11,066	64,003	1,961	709,651	13,027
November	636,530	11,029	64,153	1,986	700,682	13,015
December	620,958	11,069	65,003	1,986	685,961	13,055
Daily average	630,541	11,393	38,195	1,239	668,736	12,632
	Marketable Daily Production	No. of Wells Producing	Curtailed Daily Production	Curtailed No. of Wells	Total Potential Daily Production	Total Potential No. of Wells
1926—						
January	615,147	11,108	61,503	1,924	676,650	13,032
February	612,999	11,186	61,503	1,924	674,502	13,110
March	607,283	11,317	56,969	1,905	664,252	13,222
April	603,059	11,389	54,269	1,872	657,328	13,261
May	602,166	11,437	54,269	1,872	656,435	13,309
June	608,981	11,395	52,419	2,022	661,400	13,327
Daily average	608,219	11,290	56,784	1,919	665,002	13,209

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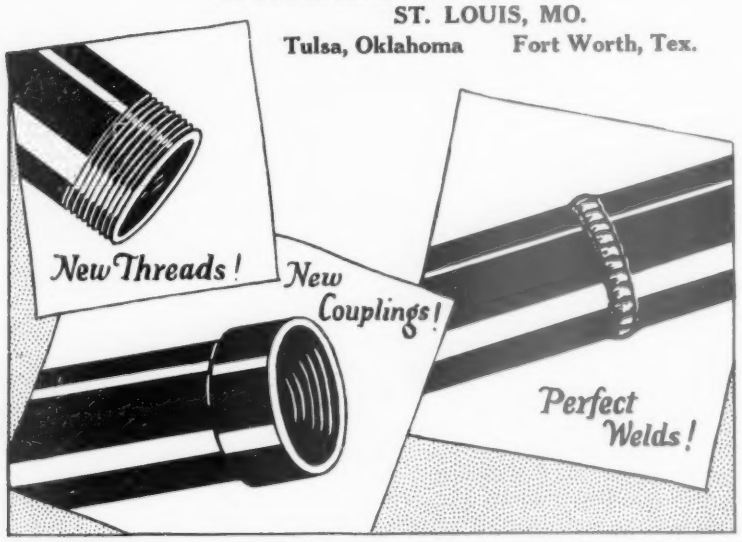

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You can't afford to take chances with drill rods. Neither can we. That's why, as an added measure of protection for both of us, we consulted an authoritative source of steel information—Carnegie Institute—for assistance in developing the Longyear Steel Formula. Only after a year of exhaustive fatigue and tensile tests by the Institute's metallurgical engineers was the proper carbon content and annealing temperature determined.

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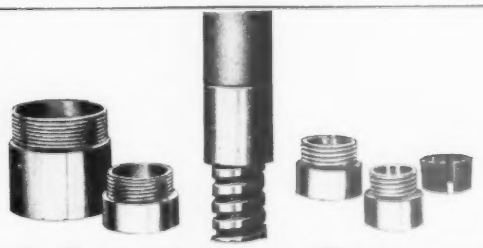
This same thoroughness applies in the selection of steel for blank bits, core shells and lifters, double tube core barrels, and other diamond drill supplies manufactured in the Longyear shop.

Our branch warehouse at Ponca City, Oklahoma, is at your service. Catalog may be obtained by writing to—



E. J. Longyear Company
Minneapolis, Minnesota, U.S.A.

OIL COUNTRY BUYING INCREASES; PIPE MILLS UNDER GREAT PRESSURE

By B. E. V. Luty

PITTSBURGH, Pa., Aug. 16.—Buying and specifying in oil country goods appears to have been increasing rather than decreasing, for the pipe mills are under somewhat greater pressure for deliveries than a week or two ago, and it is reported on very good authority that the National Tube Co. is about to put in operation part of its Riverside plant at Wheeling, W. Va. Since the building of the Gary pipe mill the Riverside plant has been considered a reserve or emergency plant, and it is particularly remarkable that it should be started now when the season is so far advanced.

On the more favorite sizes of casing pipe mills are now promising delivery in six to eight weeks, which is slightly longer than the delivery promises of a month ago. This is only to regular customers. Inquirers not regular customers are given any such promises as would attract them.

Several line pipe inquiries are now going the rounds, in tentative form, the projectors asking what deliveries the mills would be able to make. Mills are not at all responsive to such overtures, taking the position that it is more important to supply the trade with well material. As most of the line pipe laying would be towards the south, where the weather would interfere little if at all, the business may be deferred. It would come in handy for the pipe mills later on, when seasonally there will presumably be considerably less pressure for well material.

Demand for merchant pipe keeps up fully, if indeed it has not increased slightly in the past two or three weeks. On butt weld merchant pipe there is fairly prompt delivery, but even on the smaller sizes of lap weld there is a little delay.

Operating 100 per Cent

Substantially all the lap weld capacity of the industry is employed fully, and almost all the butt weld. Even counting all capacity, which involves some capacity not ordinarily considered effective, the pipe industry is running at over 90 per cent, and it is perfectly fair to say that it is operating at least 100 per cent of its normal capacity. While last year made a new record in total steel production, pipe production was not up to that of 1923. This year promises now to make a large gain over 1923. The percentage operation is, if anything, larger, and there is more capacity.

Steel ingot production in July was 3,651,055 gross tons, representing 2.66 per cent drop from the June rate, which is practically technical, the holiday being a disturbing factor even though the holiday itself is counted out in computing the daily rate of production. This month promises rather strongly to show a gain over July. The slight changes are inconsequential, the important point being that there is practically uniform operation this summer, at a high rate. In other summers there are liquidation of stocks. This time there were no stocks. While last year was a record year, this year to July 1 showed 8 per cent gain over the same period of last year, and the gain to September 1 will be nearer 10 per cent.

Unfilled Orders Grow

After decreasing for six consecutive months, the Steel Corp.'s unfilled obligations showed an increase in July, 123,880 tons. The June decrease was 170,608 tons. There was a slight decrease in shipments from June to July, but the chief cause of there being a July gain in unfilled obligations following the June loss was that there was an increase in bookings, nearly if not quite 25 per cent.

Steel prices are perfectly steady in that they have shown no quotable change in the past six weeks. If anything there is a slight accretion of strength in such lines as sheets, which show a range in prices according to circumstances of the individual order. The general tone of the market is undoubtedly better, being helped by the mill showing of sustained production and by the reversal in the trend of the Steel Corp.'s unfilled tonnage.

PETROLEUM COMMITTEE PLANS A. P. I. PROGRAM

(Continued from Page 76)

nature of many of these so-called "components" as reported in the literature is inconclusive and unconvincing. The progress of the separation and the chemical identity of the final products should be established by (1) the freezing behavior (i.e., time-temperature cooling curve for the material in mass; (2) boiling point by the equilibruim method; (3) crystallographic examination; and where necessary (4) conversion of the pure material into one of its chemical derivatives and identification thereof. The procedures should be carried out in a quantitative manner.

Catalytic Methods

Catalytic Methods Applied to Petroleum Hydrocarbons: This project covers the examination of the hydrocarbon molecule from the standpoint of catalytic investigation. Catalytic studies have recently shown that a catalyst is a convenient agent for exploring the stability of a molecule and the energy quantities involved in the linkage of the respective atoms which go to make up the molecule. A knowledge of such energy relationships is fundamental to a non-empirical attack on the problem of converting hydrocarbon molecules to other chemical products.

Effect of Electric Discharge Upon Gaseous Hydrocarbons: Investigations at the Fixed Nitrogen Research Laboratory in Washington on the effect of alpha particles on the various lower hydrocarbons, both saturated and unsaturated, have shown that these hydrocarbons, under this influence, possess a very high tendency to polymerization or to condense with the elimination of hydrogen, methane or the other lower hydrocarbons, with the result that higher hydrocarbons are formed. Methane, ethane, propane, butane, ethylene and acetylene have been studied in this connection and we have good evidence to believe that this particular kind of action is dependent upon gaseous ionization and could be just as readily brought about by any other agency capable of producing ionization. It, therefore, appears most important to see what can be done by passing different forms of electric discharge through these lower hydrocarbons.

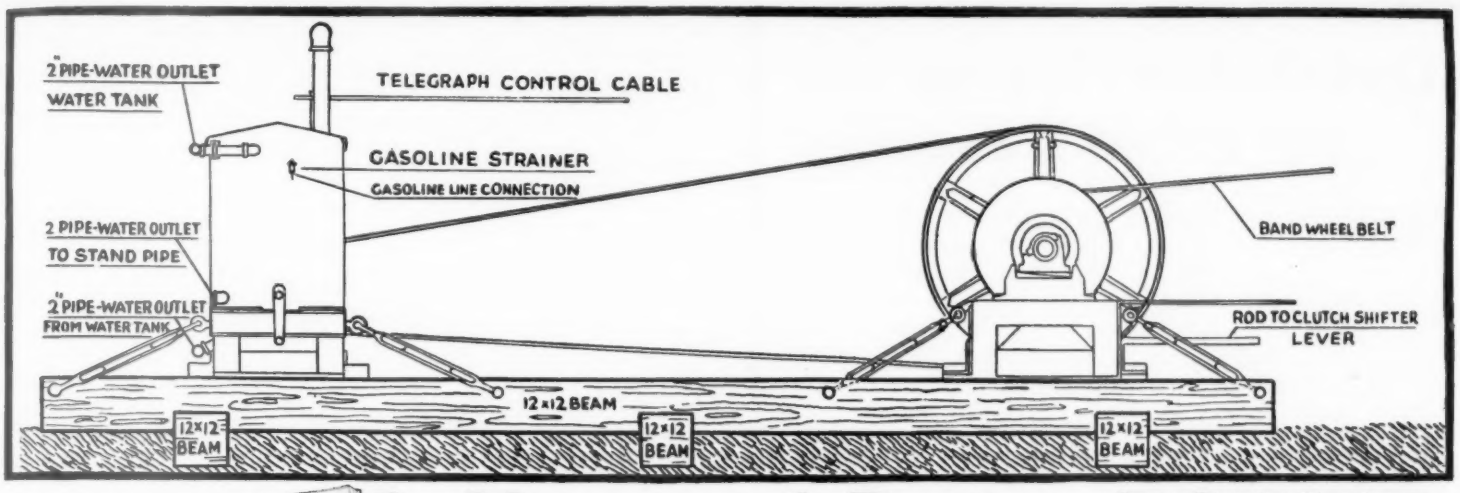
Analysis of Fractional Distillation from Absorbent Materials, Both of Light and Heavy Members of the Hydrocarbon Series: It is proposed to employ absorbent agents as a means of separating hydrocarbons possessing properties more or less closely related as to boiling and melting points and as to general solubilities in ordinary reagents. For the lower members of the saturated hydrocarbon series results have already been obtained but not as yet published.

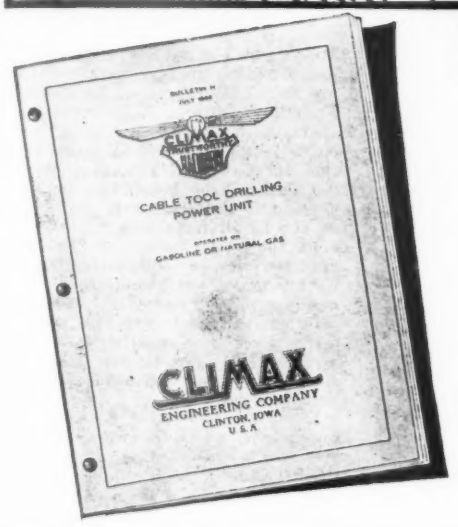
Lack of Funds

Analysis of the Gradual Oxidation Prior to Ignition of Fuels in Internal Combustion Engines and the Relation of Such Oxidation to Detonation: An apparatus has been designed, and successfully used, for taking off a sample of the gas in the cylinder of an internal combustion engine at any instant of the cycle. This work is already under way in the laboratory, with promising results, but may have to be discontinued for lack of funds.

Accurate Comparison of the Viscosities of Ring and Chain Hydrocarbons of the Same Molecular Weight and Composition: It is proposed by this study to bring to light the differences in physical

(Continued on Page 129)





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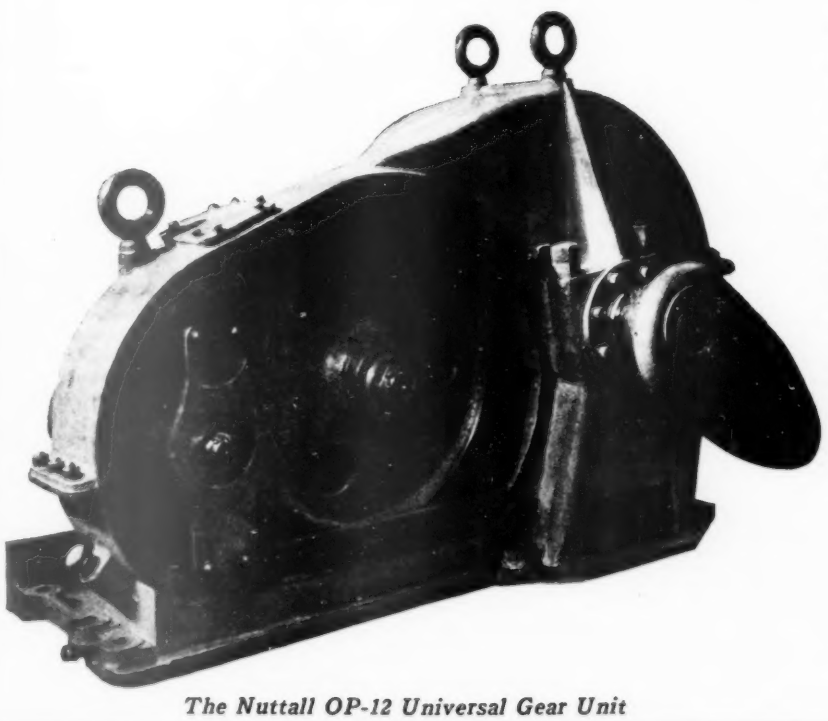

The Nuttall OP-12 Universal Gear Unit

Superior quality and flexibility are combined in the new Nuttall OP-12 Oil Well Pump Gear Unit shown.

Changes in speed can readily be made by using gears of different ratios, mounted on the same centers. Various speed reductions are now possible by simply selecting the proper set of gears.

The adoption of these self-contained units is an assurance of proper speed for different requirements of service. Our manufacturing facilities enable us to produce equipment most suitable from an operating and efficiency point of view.

Adapted to gas or electric motor drive.

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Quick Service on Oil Field Castings

THE Chicago Steel Foundry is organized and equipped to supply EVANSTEEL castings to the oil fields in record time. The excellent shipping facilities from Chicago and the complete electrification of foundry methods—melting, core baking and heat-treating—mean quick delivery of EVANSTEEL castings in practically any quantity.

EVANSTEEL is a tough, high tensile strength steel of consistent high quality developed for use in castings that must stand up under high pressures and hard service.

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CASTINGS

OGJ8-19Gray

DIXON'S *ALUMINUM-GRAPHITE* PAINT

A new addition to the Paint line of Dixon's Graphite Products and developed primarily to meet the requirements of gas, oil, industrial companies, and in fact, wherever an aluminum or light colored paint is desired. It has been prepared with the same thought and care as has made Dixon's Silica-Graphite Paint and Dixon's Red Lead-Graphite Primer famous for quality and durability.

COMPOSITION

Aluminum is combined with Dixon's Flake Silica-Graphite for the pigment and highest grade boiled linseed oil is the vehicle. When aluminum is used for paint pigment it is of flake formation, and when combined with the flake silica-graphite, each flake laps over similar to fish scales and the two form a covering of great elasticity and durability. These scales of aluminum and graphite overlap so closely that nothing can penetrate to the under or painted surface.

ADVANTAGES

Gases, fumes, acids, smoke and deteriorating agents have little, if any, effect on Dixon's Aluminum-Graphite Paint. The natural enemies of paint,—sunlight, air and moisture, are resisted and its original color is retained long after light-colored paints have darkened. Its ability to reflect light and heat make it highly desirable for industrial uses. When used on oil storage tanks, evaporation is lessened, and the interior of tanks so painted will be 10° cooler than if dark colored paint is used. This applies as well to tank and refrigerator cars where coolness is desired.

COVERING POWER

The estimated covering power is 400 square feet to the gallon on metal work and 250 square feet on woodwork. It may be sprayed or brushed on and one coat will prove to be sufficient to properly cover a darker under coat.

RECOMMENDED FOR

Gas Holders
Bridges
Hydrants
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Engine and Boiler Room Equipment
Radiators
Steam Pipes

Iron and Steel Structural Work and all Exposed Metal or Wood Surfaces.

Joseph Dixon Crucible Co.
Established 1827 Jersey City, N. J.

EASTERN FIELDS

(Continued from Page 60)

H. Fye farm, is good for 4 bbls. a day in the same formation. In the northeast quarter of Section 30, York Township, the Swingle Oil & Gas Co.'s No. 9, on the H. D. Pletcher farm, is a light gasser in the Berea grit.

In Section 23, Hopewell Township, Licking County, the Pure Oil Co. is moving rig timbers to a location on the Arthur Orr farm. In Perry Township, Fred Mead and others have rig timbers at a location on the Mead-Mayberry farm. In Hanover Township, the Edward H. Everett Co. is drilling a second test on the Lee Swiger farm.

In Section 3, Hopewell Township, Licking County, the Pure Oil Co. has completed and shot in the Clinton sand No. 6 on the Jacob S. Loughman farm, good for 15 bbls. a day. In the southwest quarter of Section 4, Independence Township, Washington County, the Forest Oil & Gas Co. and others have completed No. 7 on the Samuel Edwards farm. It was given a shot but failed to respond and goes into the discard.

In Malta Township, Morgan County, J. U. Davis has completed Nos. 17 and 18 on the J. U. Davis farm, both light pumpers. In Section 33, York Township, the Sun Oil Co.'s test on the W. K. Kirkwood farm is a 5-bbl. pumper in the Berea grit. In Section 26, Marion Township, the Bowman Oil & Gas Co. has a gasser in the same formation at a test on the Clyde Spurrier farm.

Knox County

In Union district, Knox County, the Ohio Fuel Supply Co. is drilling tests on the Lesley Lower and C. E. Durban farms. In Section 26, Marion Township, Noble County, H. M. Myers & Co. have a duster in the Macksburg 800-foot sand at a test on the J. O. Carpenter farm. In Section 19, A. S. Rucker and others had the same luck when they drilled No. 4 on the John Boyde farm through the Buell Run sand. In Seneca Township, the Ohio Fuel Supply Co. has a good gasser at a test on the Sarah Watson farm.

In the deep sand territory in southeastern Ohio, in the northwest quarter of Section 24, Ward Township, Hocking County, the Kachelmacher estate has completed in the Clinton sand No. 22 on the James J. Tracey estate. After shot it produced 38 bbls. the first 24 hours.

In Section 23, Killbuck Township, Holmes County, the East Ohio Gas Co. completed and shot in the same formation a test on the Jacob A. Middaugh farm. It produced 26 bbls. the first 24 hours. In the northwest quarter of Section 20, Fallsbury Township, Licking County, the Ohio Fuel Supply Co. completed in the Berea grit another test on the G. J. Smith farm. It is not good for more than 2 bbls. a day.

In the Henderson Field, Williams district, Wood County, the Henderson Oil Co. has completed in the first Cow Run sand No. 13 on the Drain heirs' farm. Possibly the proverbial bad luck attending its number placed it in the dry hole list. It has been abandoned.

Both Wood and Pleasants Counties are more active than at any time in many months. The shallow sand territory is all that looks attractive to operators at this time. There is no incentive for pushing development work in the deep territory, except to drill old wells deeper in the hope of getting production in some of the lower sands.

In the southeast quarter of Section 23, Washington Township, Hocking County, the Gordon Oil Co. completed and shot in the Clinton sand a second test on the J. S. Kitchen farm, not good for more than 4 bbls. a day. In the southwest quarter of Section 7, Knox Township, Jefferson County, the C. B. Oil Co. has completed in the Big Injun sand a second test on the H. S. Rinehart farm, good for 3 bbls. a day.

Light Pumpers in Licking

In Section 2, Franklin Township, Licking County, Moore & Adams completed in the Berea grit No. 3 on the Parker heirs' farm, a light pumper in this formation. In Section 15, same township, A. J. Weidman and others completed No. 3 on the R. L. Tavener farm, a 5-bbl. pumper in the same formation.

In Salem Township, Washington County, Wagner Brothers have completed a second test on the Jacob Wagner farm, good for 5 bbls. a day in the Macksburg 500-foot sand. In the northeast quarter of Section 29, York Township, Morgan County, the Pure Oil Co. has completed No. 11 on the G. J. Fye farm, good for 6 bbls. a day in the Berea grit.

In the center of Section 11, Island Creek Township, Jefferson County, J. E. Turner & Co. have completed No. 7 on the James Blackburn farm. It is a duster, located in territory that was drilled over 30 years ago. In Section 32, Knox Township, Columbinana County, George Keil, Jr., has completed in the Berea Grit No. 10 on the F. S. Pierce 10 acres, very light pumper.

New Work Starting

In Lot 288, Sutton Township, Meigs County, the Penna. Berea Co. has started to drill a second test on the Hannah M. Capehart farm. In Hopewell Township, Muskingum County, the Midland Oil Co. is moving rig timbers to a location on the E. M. Donney farm. In Section 12, Franklin Township, Licking County, the Detex Oil & Gas Co. has started to drill No. 9 on the Otto Franks farm. In Section 10, Lawrence Township, Washington County, the Peoples Banking & Trust Co. has started to drill No. 16 on the E. D. Rake farm.

In the same section of the shallow sand territory, in southeastern Ohio, test work is under way and starting. For the most part it is located in some of the old districts. It has now been more than a year since the Berea Grit Pool in York Township, Morgan County, was discovered. It has now been defined and fairly well developed.

In Section 25, Bethel Township, Monroe County, Forest Simmons and others are due in the sand at a test on the Pricilla Adams farm. Licking County has as much or more of this kind of work as any other county. In Newton Township, Roy B. Decker and others are drilling on the Joseph Hall farm. In Fallsbury Township, the Margaret Oil Co. is drilling on the C. E. VanWinkle farm. In Section 21, Sterl C. Brown and others have started to drill on the H. A. Noland farm. In Madison Township, W. W. & A. T. Wehrle are drilling on the Dolling farm. The same parties have the rig completed for a second test on the Burns farm.

In Morgan Township, Knox County, A. J. Weideman & Co. are drilling on the G. O. Hayes farm. In Clay County, Roy B. Decker & Co. are drilling on the Ira Burkholder farm. In Bowling Green Township, Licking County, the Midland Oil Co. is drilling on the Ella Sinsabaugh farm. In Hopewell Township, the Pure Oil Co. has started to drill on the Jacob S. Laughner farm. In Brush Creek Township, Fairfield County, Roy Nixon and others are drilling on the F. M. Kettle farm. A. D. Burford & Co. have a rig up on the J. C. Shaw farm. In Section 8, Penn Township, Morgan County, the Swissville Oil & Gas Co. is drilling on the Charles Mendenhall farm. In Union district, Knox County, the Ohio Fuel Supply Co. has the rig completed for a test on the C. E. Durban farm. In Richland Township, Holmes County, the East Ohio Gas Co. has a rig up on the G. L. Strouse farm.

Southwest Pennsylvania

In the Crows Run district, Beaver County, Schuck & Co. have a duster at a test on the E. Baker farm. In the old Duff City Field, Allegheny County, Robinson Brothers had the same luck at a test on the Casley farm. In the same field, W. H. Say's No. 10, on the Duthil tract, is a gasser.

In Morris Township, the Consumers Fuel Co. gave its old No. 1, on the Thomas Anderson farm a shot last Saturday and it produced 485 bbls. the first 17 hours and has been holding up at better than 400 bbls. a day. Shooting, agitating or drilling a little deeper seldom fails to bring an increase in production from these old wells that have been completed for some months.

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Every Homestead product fits, *squarely*, the particular job for which it was made.

When you buy a Homestead Valve for a certain valve job, you can rest assured that it is the valve designed, tested and approved for that particular need. For 34 years we have been making additions to our line to include every new need and requirement as they arose. That explains why the Homestead line is so complete. It also explains why Homestead Valves cost slightly more than the ordinary kind. If we were to make one "cure-all" valve we could sell it for less. But we know from experience that the Oil Industry wants the "specialized specialty," and is willing to pay more to get it. Our standard of valve manufacture, established in the beginning, will allow us to make and sell no other kind.

Cast Steel Body-Cap-Gland

For instance, the Homestead Valve illustrated here for hot oil lines has won a permanent place in the regard of many leading operators because (1) it has full machine-finished opening. No obstructions to collect carbon. (2) The seat is protected while the valve is open. Will hold pressure when closed. (3) Constructed with the patented Homestead cam, assuring a tight valve when closed. (4) Special cooling fins and air space to protect packing.

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They all Look Alike until Put to Work

It takes more than overalls and pipe tongs to make a skilled workman out of a common laborer.
The same is forcefully true in oil and gas field equipment—especially hoists.
The Wright Hoist is well schooled in the requirements of these industries—the mechanism of this super-hoist, supplemented by its especially developed "muscles," makes it *the* skilled mechanic among all other hoists—the only resemblance it bears to the rest is in its appearance when not in action.

Let us tell you ALL about its many points of superiority that issue greater speed, safety and convenience in hoisting.

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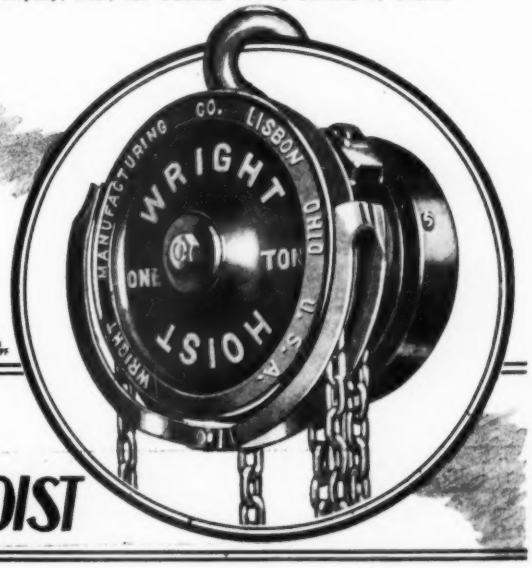
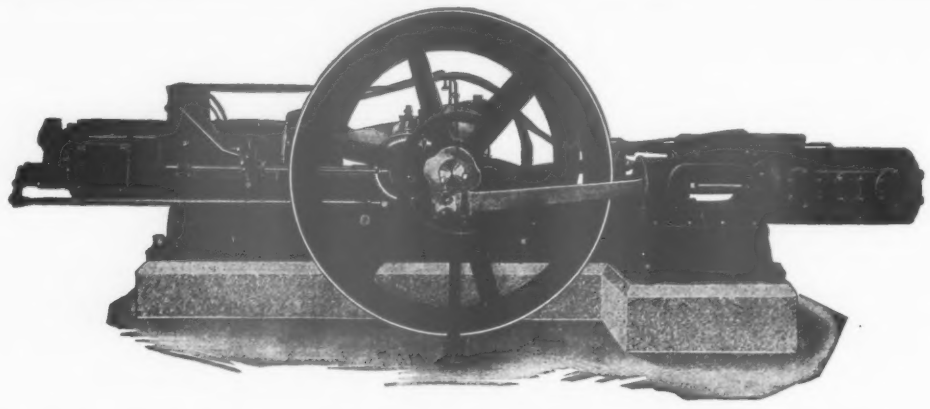


WRIGHT IMPROVED HIGH SPEED HOIST



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Especially adapted for increasing rock pressure on old wells. Requires minimum attention, and will run on lean mixture of air gas. Several hundred units running on leases in charge of one man, no extra mah required for dependable twenty-four hour service.

Made in 40, 50, 60, 75 and 90 H. P., suitable for pressure fifty pounds to four hundred pounds. Can be arranged with vacuum pump on one side and compressor cylinder on opposite side for circulating gas, making it the most accessible unit on the market.

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MARKETERS know gasoline pumps. They have again and again compared and tested them to see what particular make of pump can be relied on for dependable performance. Their experience, therefore, deserves careful consideration.

Here is what a few G.&B. users say:

"We have used Gilbert & Barker pumps for several years and they have always given us perfect service. One pump has dispensed 315,000 gallons, one 215,258 gallons and another 180,000 gallons. We haven't spent a nickel for repairs on these pumps and have had constant service since installing them."

". . . we cannot say too much in their praise as they have given complete satisfaction . . ."

"We find your pumps rapid, easy to operate, and very accurate. We test them every day, and have never had to make an adjustment of any kind since they were installed."

"Find them to be the most satisfactory pumps the writer has ever used and his experience has covered several."

Hundreds of other marketers are equally as enthusiastic about G.&B. equipment. Let their experience guide you in selecting the next pumps you buy.

GILBERT AND BARKER
MANUFACTURING COMPANY
PUMPS AND TANKS FOR THE OIL TRADE
SPRINGFIELD MASS. U.S.A.

Let us send you our T-177 bulletin. It is a booklet you would want to read before buying your next visible equipment.

Exceptionally attractive in appearance, the G. & B. T-177 visible pump meets all the requirements of the filling station. It is accurate, fast, safe in delivery, and built strong to stand the strain of continuous service. Made in five and ten gallon sizes for either mechanical measure or wet hose sight measure delivery; hand or air operation; approved by the Underwriters.

PUMPS THAT HELP YOU SELL

PETROLEUM COMMITTEE PLANS A. P. I. PROGRAM

(Continued from Page 124)

structure between various isomers of hydrocarbons.

Determination of Physical Properties of Petroleums and Petroleum Products: It is proposed to determine as accurately as possibly the physical properties of a large number of crude petroleums and petroleum products; such, for example, as specific heats, latent heats at all temperatures, critical data and specific gravities at higher temperatures. All refining engineering work is handicapped by a lack of reliable information of this character.

Preparation of Pure Typical Hydrocarbons and a Study of Their Behavior When Heated Alone and With Catalysts: It is proposed first to prepare a number of pure hydrocarbons and then subject them to varying conditions of heat with the purpose in view of ascertaining (1) the possible rearrangement and polymerization of the olefines present, and (2) the possible rearrangement and decomposition of the paraffins and the cycle paraffins.

Determination of Composition of Southern California Petroleum: It is planned to study a number of methods leading to the separation of the various components from the crude petroleum. Particularly in view is the study itself of characteristic reactions of these various components when isolated.

Isolation and Investigation of Thermo Labile Hydrocarbons Present in Petroleum: One aspect of this work is to study the labile hydrocarbons which are responsible for some of the reactions involved in the so-called "cracking" of this material.

Sulphur Compounds

Isolation and Study of the Sulphur Compounds Present in Petroleum: Little is known today of the organic sulphur compounds in petroleum; in fact, the methods for their isolation leave much to be desired. It is proposed to study methods of isolation by all possible physical and chemical means. There will be undertaken also comprehensive chemical studies of selected types of organic sulphur compounds with special attention to their reactivity upon heavy chemicals such as those used, or that might be used, in the refining of petroleum products.

Non-Catalytic Thermal Decomposition of Pure Hydrocarbons and Related Compounds: This research will attempt to study the nature of organic thermal decompositions as applied both to saturated and unsaturated hydrocarbons.

A Study of the Relative Rates of Reaction of the Olefins: The olefines, ethylene, propylene, butylene, etc., are produced in great quantities in the refining of petroleum. The effect of their structure on the relative rates of addition to acids has already been investigated. Experimental data on the relative rates of oxidation, hydrogenation and halogenation of the olefins, under varying conditions of temperature, pressure and catalyst, will here be sought.

Isolation and Investigation of Nitrogen Compounds Present in Petroleum: The work of Maberry and Wesson opened up the possibilities in this field and pointed to both aromatic and hydroaromatic compounds, chiefly of the quinoline type, as constituting the main portion of the nitrogen fractions.

It will be necessary to repeat the work already done and to amplify the processes that applied to methods of separation. If the lower alkylated quinolines of California petroleum consist of hydrogenated heterocyclic rings then dehydrogenation of these compounds should be studied in order to identify them with well known members of the quinoline series.

SOUTHWEST WILDCATS

(Continued from Page 94)

Noonan. Golden West's No. 1 Courand, southwest of Castroville, is drilling at 765 feet. Alamo Drilling & Leasing Co. in western Medina county is down 200 feet in No. 1 Kenedy. Ina Oil Co.'s No. 1 Hoffman in Medina at 1,944 feet finished fishing for a roller bit that has held the test up for about three weeks and is taking a core. It topped the Edwards lime at 1,912 feet and very little additional drilling will tell whether or not the test will make a producer in the Edwards. If it fails there it will drill again to develop some shallow sands passed in drilling to the Edwards. The same company's No. 1 Finger on Survey 746 farther west is setting 10-inch casing to shut off salt water at 725 feet and will continue to drill. North & South Oil Co.'s No. 1 Taylor, south of Hondo, has abandoned the test at 1,425 feet after finding the Edwards dry.

Milam County

J. W. Allen's No. 1 Brown, 6 miles west of Rockdale in Milam County, is drilling at 3,040 feet in the base of the Georgetown and expecting with a few days drilling to top the Edwards. It is continuing to show considerable gas. George Lyles is moving in tools north of the Allen test and 7 miles west of Cameron.

McMullen County

Coyle-Concord Oil Co. is building new derrick on the M. Martin ranch in southwestern McMullen County. The first derrick was destroyed by a cyclone last week Monday just as the crew was preparing to spud in. George M. Ball in northwestern McMullen, on the Kuykendall ranch, is drilling at 800 feet. Westmoreland Oil Co. deepened No. 1 Franklin north of Tilden from 2,230 feet to 2,255 feet and the showing of oil has increased. Casing had not arrived late last week but is expected. It will be deepened a little more before casing is set. The showing is believed to be sufficient to make a well and it is now 35 feet into the sand.

San Patricio County

John Sigmund is digging the slushpit and moving in machinery for his No. 8 McCampbell which will be a 2,100-foot test.

Starr County

Danciger Oil & Refining Co. has leased a big block out of the John T. Jud ranch of 77,000 acres in eastern Starr County and are to start a test within 45 days. Ramsey-Maxey Oil Co. is drilling at about 1,000 feet in No. 1 Kelsey on Porcion 76 north of Rio Grande City. It cored an oil sand at 960 feet but did not stop to test.

Val Verde County

Plateau Oil Co. has abandoned No. 1 Harrison in Val Verde County at about 2,285 feet.

CANADIAN FIELDS

(Continued from Page 56)

tion 7-20-2w5, is below 2,900 feet and drilling. No more limestone bands have been encountered since the 2,000-foot level was passed. The drillers are planning to run 10-inch casing to 3,500 feet. New McDougal-Segur Oil Co., LSD 14, Section 12-20-3w5, has resumed drilling after running the 12½-inch casing to the 1,655-foot level.

Dallas Oil Co., LSD 11, Section 20-19-2w5, has resumed drilling at 2,450 feet after running the 10-inch casing. Calmont Oils, Ltd., LSD 2, Section 1-20-3w5, is drilling below 1,050 feet with considerable open hole. British Dominion Oil Co., LSD 4, Section 5-20-2w5, has resumed drilling after setting the 15½-inch casing at 1,300 feet.

Advance Oil Co.'s No. 2, LSD 14, Section 20-19-2w5, is at 950 feet and drilling. Home Oils, LSD 10, Section 2-19-2w5, is at 1,880 feet and drilling. Highland Oils, Ltd., LSD 5, Section 5-20-2w5, is drilling below 250 feet. New Black Diamond's No. 1, LSD 1, Section 3-20-3w5, is at 450 feet and drilling. New Valley Oil Co., LSD 4, Section 6-21-2w5, is drilling below 250 feet.

Other Operations

Okalta Oils, Ltd., LSD 1, Section 1-20-3w5, has cellar finished and is working on derrick. It is expected to spud in about August 28. Titan Oil Co., LSD 2, Section 18-20-2w5, is doing some work on the site. Fred Beresford, formerly superintendent for the Maple Leaf and Interior companies in the Wainwright Field, will be field superintendent for the Titan. Duthil Oils, Ltd., has spotted

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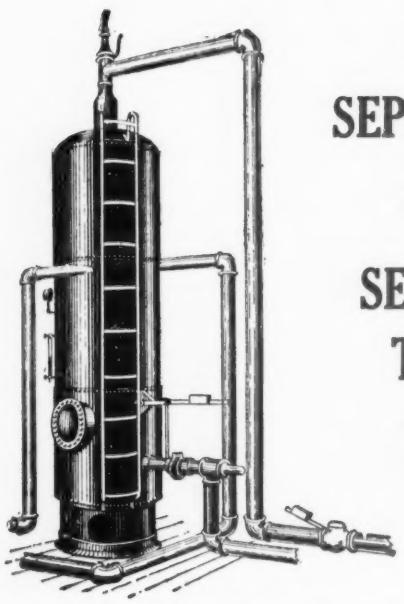

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two tests on the Rickert structure, No. 1 in LSD 13, Section 28-19-4w5, and No. 2 in LSD 1, Section 5-19-4w5.

Argyle Oil Co. is reported to be letting a contract for its No. 1 in LSD 1, Section 33-20-2w5. The company is incorporated under Dominion charter with head office at Calgary. Officers are: President, D. N. Needham; vice president, W. C. Wood; directors, Frank Henderson, C. H. Huss, Joseph Fluke, W. J. Ambry and C. E. Bevan; secretary, J. O. Campbell. Mid-Valley Oil Co. is letting contract for its No. 1 test in LSD 12, Section 5-20-2w5. Lucky Strike Oil Co. has located a test in LSD 13, Section 26-19-3w5.

Royalite Oil Co.'s No. 6, LSD 13, Section 7-20-2w5, is at 3,477 feet and drilling steadily. Royalite's No. 6, LSD 16, Section 31-19-2w5, is down 2,993 feet and drilling.

Imperial Oil, Ltd., is making steady advance with its tests in other sections of Alberta. In the Highwood Field, Imperial-Highwood's No. 1, LSD 3, Section 36-18-3w5, is reported to have spudded in this week.

In the Jumping Pound district, Imperial-Bow River's No. 1, LSD 15, Section 12-25-5w5, is down 3,400 feet and running 10-inch casing.

In the Rice Creek district, west of Nanton, Imperial-Rice Creek's No. 1, Section 4-14-2w5, is down 4,575 feet and drilling steadily.

Border Fields

In the Border Fields, Imperial-Burdette's No. 1, Section 8-11-11w4, is making rapid headway with the rotary outfit brought from Erickson Coulee, the last reports giving a depth of more than 565 feet. East of Coutts, Imperial-Erickson Coulee's No. 1, LSD 13, Section 8-1-12w4, is drilling with the standard outfit at 2,376 feet, and is reported near the horizon where the Ellis sand may be looked for.

In the Moose Mountain district, Signal Hills' No. 2, LSD 9, Section 34-23-5w5, is drilling below 500 feet. The 20-inch casing was set at 110 feet, from which level the drillers are making open hole. A hard formation with numerous boulders was met in the first 200 feet of drilling. Vergil Sine, formerly in the American Mid-Continent Field, is head driller. Signal Hills's No. 2 is about 300 yards from the old Moose Mountain well, drilled at the time of the first Calgary boom. The Moose Mountain well struck a small flow of oil between 1,600 and 1,700 feet, estimated around 10 bbls. a day; and at about 2,440 feet a larger showing, with what looked like a fair flush production. The oil was a light crude, between 48 and 54 Baume, but apparently failed to hold up; and after an unsuccessful shot and the loss of a string of drilling tools and two sets of fishing tools, the hole was abandoned and the casing pulled. Moose Mountain's No. 2 was drilled to 2,025 feet, and has been taken over, unfinished, as Signal Hill's No. 1. The Moose Mountain Oil Co. holds the acreage, the Signal Hill Oil Co. developing the area on a royalty basis. The field presents a possibility of production around 1,600 feet, with chances of a better sand between 2,500 and 3,000 feet.

In the same area, Cherokee Oil Co., Section 33-23-5w5, is down nearly 1,700 feet with a diamond drill test, in which it is reported, the cores show some oil indications. Reserve Oils, Ltd., on the Morley Indian reserve is drilling in the bottom of the Benton formation around 1,600 feet, with traces of oil in the cores, and should soon reach the Dakota sand.

Ranchmen's Oil & Gas Co. has shipped a standard outfit, formerly used on the Community well at Peace River, to Aldersyde, for a test in LSD 16, Section 13-20-29w4, on the Gordon Campbell Dome. John Drader is getting the site in readiness for rigging up and the test is expected to spud in about August 30.

Wainwright Field

In the Wainwright Field, east central Alberta, Edmonton-Wainwright Oils' No. 1, LSD 4, Section 29-45-6w4, has been put on the pump to keep the well in condition and supply fuel oil for drilling other tests. New tankage is being secured to handle the production, estimated at 350 bbls. a day. National Exploration Co.'s LSD 1, Section 30-45-6w4, has a derrick up and is unloading a rotary outfit recently shipped from California. This location is just across the road to the west of the Edmonton-Wainwright No. 1. Chuck Dellinger will handle the drilling. Anglo-Alberta Oil Co., LSD 16, Section 19-45-6w4, is getting ready to spud in south of the Edmonton-Wainwright No. 1. This company has brought an extra heavy rotary outfit from California for its test, which may be carried to 5,000 feet to test the lower formations in the Wainwright Field.

Emerald Oils, Ltd., LSD 8, Section 30-45-6w4, is being swabbed but apparently is failing to develop commercial production, and may have to be deepened into the Devonian limestone. Fabyan Petroleums, Ltd., LSD 8, Section 24-45-8w4, is reported drilling at 200 feet. Interior Oil Co., Section 36-44-7w4, is rigged up ready to resume drilling at 1,500 feet. A cable tool outfit is being used.

Western Consolidated No. 2, Section 30-45-6w4, is drilling in hard shale at 2,500 feet, having failed to secure commercial production at the usual depth for the Wainwright field. Production is expected around 2,600 feet. Baxter-Wainwright Oil Co., LSD 14, Section 20-45-6w4, south of the British Petroleums' No. 3-B producer, has the derrick up and machinery on the ground for a rotary test. Anglo-Wainwright Oils, Ltd., LSD 16, Section 19-45-6w4, also across from the British Petroleums' No. 3-B, is freighting out machinery and starting work on derrick.

Le Canadienne Wainwright Oils, Ltd., incorporated under Alberta charter with $150,000 capitalization and head office at Morinville, Alta., has located a test in Township 45-6-w4, in the west side of the Baxter Lake area. Officers of the company are.: President and managing director, Omer St. Germain; vice president, Charles LaJoie; director, Thomas A. Knudsen, all of Morinville.

Ribstone-Blackfoot Area

In the Ribstone-Blackfoot area, Pinnacle Oils, Ltd., of Calgary has located a test in LSD 12, Section 20-45-1w4. A combination chilled shot and standard rig will be used, with R. Bradley, an American driller, in charge as field supervisor. Ribstone Oils, Ltd., LSD 1, Section 1-46-1w4, is reported to have spudded in. William Calder, oil engineer of London, England, has been appointed field engineer for this company. Advance Oil Co.'s No. 3 is reported rigged up ready to spud in.

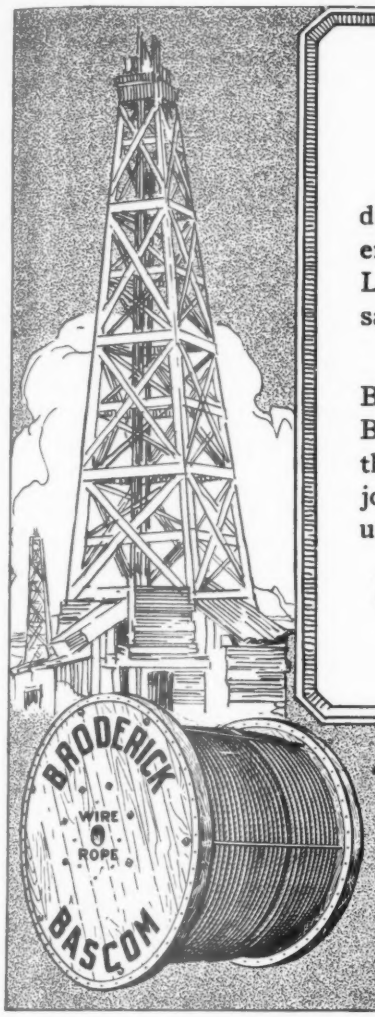
In the Medicine Hat-Redcliffe Field, C. E. Roth and associates of Independence, Kans., are forming a company to drill in the Redcliffe Field. Roth's No. 2 deep test, near the Ajax mine, has been spudded in. No. 1 deep test at Crescent Heights, in the Medicine Hat Field, after getting some gas production, encountered water, but it indicated that the structure was higher in the Redcliffe area, to which operations have accordingly been shifted.

In the Border Felds, Urban Oils, Ltd., Section 4-1-15w4, on the Quarantine Reserve near Coutts, lost its derrick by fire catching from the forge. The tools were in the hole at the time, and the damage was confined chiefly to the derrick. The test was at 3,042 feet and in the limestone.

Devenish Petroleums, Ltd., LSD 5, Section 27-5-14w4, has finished setting the 24-inch casing at 125 feet and resumed drilling.

The Canadian Western Natural Gas, Light, Heat & Power Co. of Calgary has leased some 16,000 acres of potential gas-bearing land southeast of Lethbridge, chiefly in Townships 3-17-w4, 5-19w4, 2-17w4 and 3-18w4. The acreage is in the Warner and New Dayton districts and extends close to the Raymond district and frequent flows of shallow gas has been encountered in drilling for water.

On the Montana side, Monalta Oils, Ltd., has located No. 2 test 4 miles west of No. 1. The casing from No. 1 will be pulled and used in No. 2. Cascade Oils



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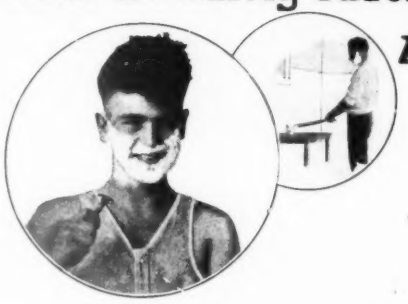

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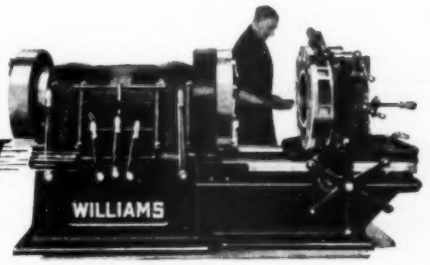

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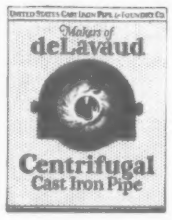

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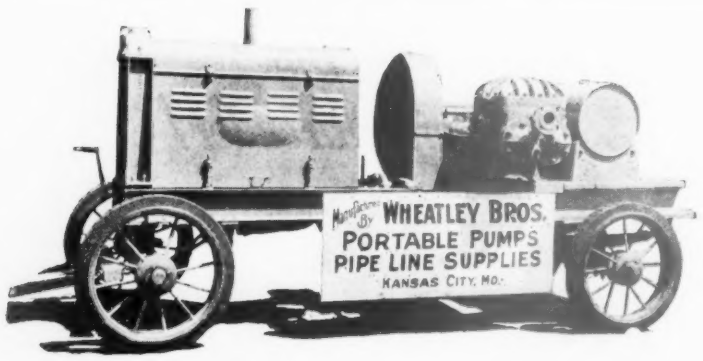

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No. 1, Section 11-34-1w, is reported drilling below 1,200 feet. Red Deer-Sunburst Oil Co., which has six producers in the Montana Field, has spudded in No. 7 in Section 29-35-1w. Big Six Oil Co., incorporated under a Dominion charter with head office at Saskatoon, Sask., has located a test in Section 28-35-1w.

Alberta operators are interested in the prospective testing on the Montana side of the northern section of Toole County, close to the Alberta boundary, where Great Falls and Kalispel interests are preparing to drill.

Northern Alberta

In northern Alberta, a group of Calgary men have organized the Bituminous Sand Extraction Co. with head office at Calgary to develop tar sand deposits in the Athabaska area by means of the Absher steam extraction process. This process, invented by J. O. Absher of Montana, now residing in Calgary, was recently given a three-day test under actual field conditions. A 4½-inch pipe with perforations 3 inches long, ⅛ inch wide and 3 inches apart, was run just into the limestone at 375 feet, penetrating 185 feet of overburden and 190 feet of tar sand. Inside the larger pipe a 1¼-inch pipe was run to carry off the oil. Steam, super-heated to 600 degrees Fahrenheit, was forced down between the two pipes. The main pipe is shut off at the bottom while the oil, backed by steam pressure, forces its way up the smaller pipe. It is reported that the well tested by the Absher process flowed oil from the top of the pipe, and that the test was entirely successful. Mr. Absher is now testing the process with the heavy oils of the Wainwright Field.

It is claimed that one well will drain a radius of 50 feet. Equipment at the well consists of a boiler fitted with 300 feet of superheating coils in the furnace, a separator to take out the sand, and a condenser to catch the oil that comes out in the form of vapor. Better results are obtained by mixing distillate with the steam. The wells are drilled by the jetting system, the outfit consisting of an ordinary spud drill on the end of a hollow stem through which water is forced down similar to a rotary stem, the water being released from holes near the bottom of the bit. Tar 1½ inches thick formed on the drill stem in the Athabaska test. It is stated that approximately 75 per cent of the crude recovered by this process distills into a reasonably light oil, the remaining 25 per cent being heavy asphalt. By distillation the oil produces the following: Gasoline, 10 per cent; kerosene, 40 per cent; Diesel oil, 25 per cent; asphalt, 25 per cent. By the Dubbs cracking process 37.9 per cent of gasoline is obtained from the crude, testing 53.2 degrees Baume.

The Bituminous Sands Extraction Co. holdings are along the line of the A. & G. W. Railway, and it is planned to first sink a series of wells along a siding 12 miles from McMurray. Mr. Absher will supervise the drilling. It takes about five days to put down a shallow well to the limestone, and it is estimated that each well can be put down and equipped ready to connect with the boiler, condenser and separator for $500; while the cost of production is stated to be about the same as the expense of pumping ordinary wells. It is estimated that one 50 horse power boiler with one man per shift will operate 15 wells.

The tar sand deposits are estimated to cover 100,000 square miles. Efforts to develop the area by drilling have been unsuccessful, the oil being too heavy to flow or pump by ordinary methods. Efforts have been made at various times to develop extraction processes, but these involved the mining of the sand putting it through an extraction plant, and disposing of the immense quantities of waste sand. Most of these processes, while successful on an experimental scale, did not prove commercially feasible.

British Columbia

In British Columbia the Sumas Oil Co., drilling in the Fraser Valley, is reported to have got a fair flow of gas and some traces of oil at 700 feet depth. Drilling is being continued.

In Saskatchewan, United Valley Oil Co., SE Section 23-41-24w3, has a show of oil at 1,150 feet depth in a sandy shale. Whether it represents commercial production has not yet been determined.

The Big Six Oil Co. has been incorporated under Dominion charter with head office at Saskatoon, Sask. In addition to a test for oil in the Montana fields, the company has secured acreage 40 miles northwest of Saskatoon, which will be tested for gas to supply Saskatoon and adjacent communities. Officers of the company are: President, J. J. Quinlen; vice president, G. E. Aldrich; managing director, J. F. Blackstock.

In the Ontario Fields, Union Natural Gas Co. has spudded in No. 12 test in Dawn Township, Lambton County, on Lot 26, concession 4, just north of the 25 sideroad. The test will be drilled to the gas sand. In Norfolk County, the Dominion Natural Gas Co. has located a new test for gas in Middleton Township south of the Courtland Field.

GULF COAST FIELDS

(Continued from Page 44)

Locations have been made by the Walker Syndicate for No. 1 Quinn; the Deep Sand Oil Co. for No. 1 Howell; the Spindletop Gusher Oil Co. for No. 1 Rush; Highland Oil Co., Ward and Wise for No. 1 McFaddin; Ring and Ewing, No. 1 Hines; Wilson and Broach, No. 1 Weed; Rush and Pittman, No. 1 Hammams; Mothern and others, No. 1 Davis; O. M. Cord, No. 1 Davis.

The Gulf company is setting casing in No. 1 Jack-Duff, nearly 1,000 feet south of production, at 2,850 feet. Casing is also being set in No. 3 Oakwood at 2,500 feet. No. 3 Mann is drilling at 2,755 feet. No. 4 is at 1,875 feet. No. 4-A Weed is around 2,700 feet. No. 5 is at 470 feet, with a location for No. 6. No. 3 Roche is below 2,900 feet. No. 4 is drilling at 1,435 feet. No. 2 is deepening.

The Sun Oil Co.'s No. 3 McLean is around 3,410 feet. No. 4 is around 300 feet. The Atlantic Oil Producing Co.'s No. 3 McLean is around 2,655 feet. No. 4 is at 1,655 feet. Nos. 5, 6 and 7 are rigging. The Rio Bravo Oil Co.'s No. 4 T. & N. O. is at 2,435 feet. No. 6 is a derrick. No. 7 is at 1,765 feet. Paggi & Co.'s No. 1 Gordon is working over at 2,910 feet. A location has been made for No. 2. No. 3 is drilling at 876 feet. Combat and others' No. 1 Ewing is at 3,235 feet. The Deutser Oil Co.'s No. 1 Scharbaur is drilling at 3,345 feet. Turnbow Oil Co.'s No. 1 Banks is around 2,980 feet. No. 1 Weed is drilling at 1,455 feet. The Seven Oil Co.'s No. 2 Trembly is at 1,660 feet. Porch & Telshaw's No. 5 Trembly is around 1,900 feet. The Unity Oil Co.'s No. 89 McDadden is below 2,200 feet.

The Yount-Lee Oil Co. is drilling Nos. 7 and 8 Gladys, and 8 and 9 McFadden; rigging No. 4 fee and Nos. 2 Davis and 2 Trembly.

Deep Sand Sour Lake

In the deep sand area on the southwest side of the Sour Lake Pool, the Yount-Lee Oil Co.'s No. 5 Gilbert is drilling below 3,010 feet and No. 2 Lynn is around 2,895 feet. The Humphrey Corp.'s No. 1 Oxford-Kelley is at 3,765 feet with a derrick up for No. 2-D Bashara. J. F. Bashara's No. 1 fee is at 2,876 feet. The deepest test is the Sun Co.'s No. 1 Libby drilling around 4,700 feet. The Orange Petroleum Co.'s No. 1 Merchant is at 4,163 feet. Eunice and others' No. 1 fee is at 2,780 feet, with a derrick standing for No. 2. The Gulf Production Co.'s No. 1-D McLean is at 3,986 feet. Gordon and others' No. 1 Schaffers is drilling at 3,718 feet. On the north side, the Lake View Oil Co.'s No. 49 Hardin is at 1,435 feet.

In the Batson Pool, The Texas Company's No. 2 LaJarza, on the east side, is around 2,070 feet. The Houston Production Co.'s No. 1 Santa Fe, on the north side, is drilling around 3,190 feet. The East Batson Oil Co.'s No. 9 Counzleman is fishing at 1,100 feet. Gulf Production Co.'s No. 1 Cruse is around 1,186

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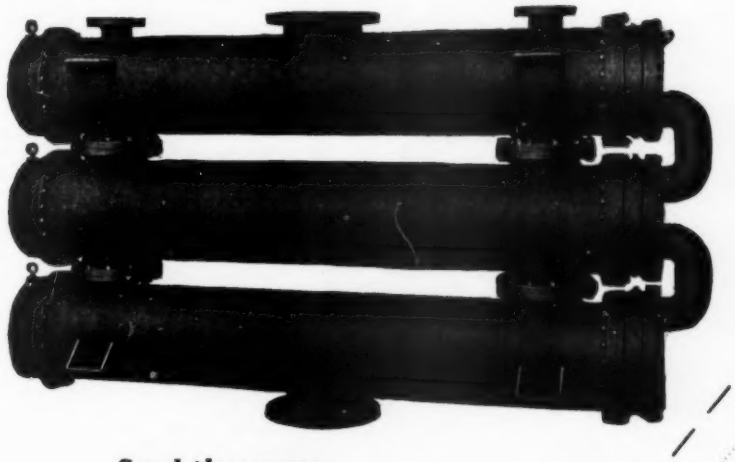

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feet. Buchanan Oil Co.'s No. 90 Milhome is drilling at 765 feet.

Paggi & Co.'s No. 43 Queen City, in the Saratoga Pool, is shut down.

Liberty County Pools

In the west side extension of the South Liberty Pool, the Premium Oil Co.'s No. 1 Mitchell, on the north side, is drilling around 3,770 feet.

In the Hull Pool the Republic Production Co.'s No. 126 Dolbear is drilling at 2,300 feet; No. 132, drilling 2,500 feet; No. 123, drilling 2,750 feet; Nos. 136 and 137, locations. The Humble Oil & Refining Co.'s No. 5 Merchant, location; No. 22 Guedry, rigging up; No. 1 Lynd, sidetracking; No. 2, location; No. 1 Bevers, drilling 3,950 feet; Peer Oil Co.'s No. 4 Harrison, fishing 2,800 feet. The Empire Gas & Fuel Co.'s No. 20 Barngrover, drilling 1,400 feet; No. 21, drilling 2,900 feet. The Texas Co.'s No. 1 Hannah fee, bailing 2,950 feet; No. 1 Armelin, rigging up. The Gulf Production Co.'s No. 18 David Hannah fee, drilling 4,350 feet; No. 18 Scarborough, drilling 3,550 feet; No. 10 W. L. Thomas fee, drilling 2,750 feet; No. 70 Phoenix, drilling 3,350 feet; No. 71, drilling 3,250 feet; No. 72, drilling 1,250 feet; No. 18, drilling 2,850 feet.

The Sun Oil Co.-Humble Oil & Refining Co.'s joint No. 1 in the Johnson Bayou section of Cameron Parish, Louisiana, is drilling around 2,800 feet. The Pure Oil Co.'s No. 3 at Sweet Lake, in the eastern part of the parish, is below 5,340 feet. The Gulf Refining Co. is rigging No. 1 Broussard in Iberia Parish.

The Keen Petroleum Co. is starting No. 1 Foster in Polk County in east Texas. In the Refugio County gas field, the Houston Oil Co. is drilling No. 6 Heard and Bartlett and Brooks No. 2 Heard.

The Navarro Oil Co. is drilling No. 5 on the Keechi Dome, an inland salt uplift, 6 miles northwest of Palestine. The four previous tests went into rock salt or salt water. The Keechi Dome is an old one around which considerable wildcatting has been done by The Texas Company and other operators.

The Humble Oil & Refining Co.'s No. 6 Walsh, in the Piedras Pintas Pool in Duval County, is reported standing with 2,000 feet of fluid in the hole at 3,594 feet. It will not flow, having little or no gas pressure. It is located 365 feet north from No. 4 Walsh, the deep sand discovery well there, which came in last December. The Magnolia Petroleum Co.'s No. 1 Speer, 1 mile northwest of No. 6 Walsh, is drilling around 3,985 feet. The Humble Oil & Refining Co.'s No. 1 Beecher is drilling 1 mile west.

Harris County Pools

At Pierce Junction, J. F. Bashara has set and cemented casing to test 18 feet of sand between 3,600-3,700 feet. The location is on the north side of the dome. The Rio Bravo Oil Co.'s No. 3-P Settegast, on the same side, is at 2,875 feet, and No. 3 P. F. Settegast is below 3,300 feet. The Texas Exploration Co.'s No. 10 Dooley is around 2,276 feet. On the east side, the Gulf Production Co.'s No. 19 Taylor is drilling around 2,455 feet. H. R. Cullen's No. 6 Howe is working over.

In the Goose Creek Pool, the Gulf Production Co.'s No. 25 Smith is at 2,877 feet. No. 6 Hirsch is drilling below 4,335 feet. No. 34 Beaumont is below 3,125 feet. No. 7 Wright is drilling around 5,000 feet. The Humble Oil & Refining Co.'s No. 69 Smith is below 4,996 feet. No. 26 is rigging up to work over. On Galliard Peninsula, No. 12 is drilling below 3,665 feet. No. 9 is rigging to work over. Derricks are up for Nos. 17 and 31. The Southern Exploration Co.'s No. 7 Freeman, in the bay, is at 2,935 feet. The M. & B. Oil Co.'s No. 4 Scorrgea, northwest of production, is drilling below 4,665 feet.

In the Humble Pool, Weed and Thompson's No. 3 Armstrong is drilling, as is Cezereaux and Martin's No. 18 Hirsch, and Marralias Brothers' No. 8 Long. Benedum & Trees have a location on the northwest side of the pool, far enough out to be classed as a wildcat.

In the Orange Pool, the Gulf Production Co. has a location for No. 24 Hager fee, on the east side of Cow Bayou. The Rycade Petroleum Co. is working over No. 1-C State land, Cow Bayou. The Sun Oil Co. is working over No. 2 Brown in the southeast end of the pool at 4,277 feet. The Brownie Babbittee Oil Co.'s No. 3 McLean is rigging to work over. The Humble Oil & Refining Co.'s No. 27-B Chesson is at 3,245 feet. No. 4 Winifree is around 3,565 feet. The Texhoma Oil Co.'s No. 9 Chesson is working over.

Other Pools

At High Island, Galveston County, the Gulf Production Co.'s No. 5 Smith is drilling at 4,875 feet. No. 2 Smith is around 2,776 feet. The Sun Oil Co.'s No. 8-C Cade is reaming at 4,377 feet with a location made for No. 11 Cade. No. 9 Lockhart is drilling around 565 feet.

The Hyde Production Co. has made a location for No. 2 Masterson at West Columbia. The Rycade Petroleum Co. has two rigs running at Nash Dome and the Gulf Production Co. one at Orchard, in Fort Bend County. The same company has locations for Nos. 15 and 16 Davis, at Long Point between Big Creek and Damon Mound.

The Rycade Petroleum Co.'s No. 2 Kountz, on the south side of the Markham Pool, is drilling around 3,585 feet. The Houston-Gulf Gas Co.'s No. 1 Kountz, 2 miles west of Markham, is around 4,600 feet.

South Louisiana Pools

In the Vinton Pool, the Edgerly Petroleum Co.'s No. 10 Vincent, is drilling around 4,065 feet. No. 11 is at 2,165 feet. The Texas Company's No. 2-A Gray set casing at 2,200 feet. The Vinton Petroleum Co. set a liner in No. 17 Vincent at 3,600 feet. No. 56 Gray is drilling around 1,100 feet. The Gulf Refining Co.'s No. 2 Gray is around 2,455 feet. No. 5 Gray is at 1,788 feet. A location has been made for No. 40 Star. Ratcliffe and others' No. 4 Perry is drilling at 1,235 feet.

In the Lockport Pool, the Vacuum-Gulf Co.'s No. 8 Miller is drilling at 4,435 feet, and No. 10 Miller is around 4,765 feet. No. 1 Farquhar is at 2,435 feet. No. 4 Lock-Moore is below 5,650 feet. No. 3 Bordages is drilling around 3,875 feet.

In the Edgerly Pool, the Edwards Oil Co.'s No. 4 Landry is working over. C. M. Crotty's No. 14 Lilliard is at 899 feet. The Rex Petroleum Co.'s No. 3 Hunter is around 3,676 feet.

Coastal Wildcats

Very little change is noted in the progress being made with Coastal wildcats, either those drilling around the new domes or those exploring around the flanks of the older and better known saline uplifts. There are very few what might be termed rank wildcats drilling in the Coastal region. By that is meant but few tests are drilling except in territory that has been explored geophysically. One does not hear so much about the seismograph or torsional balance now since the novelty has worn off, but both methods are very much in evidence and the land departments of the major companies will not touch any prospective acreage unless the owner or lease holder will give permission to explore it geophysically. At least not in this Coastal, or saline dome region.

At present the instruments are being used to explore millions of acres in the south Louisiana parishes, such as Cameron, Calcasieu, Jeff Davis, Iberia, La Frouche, Vermillion, St. Mary, St. Martin, St. Landry and others. Experts are checking and rechecking the recordings of the instruments. Various rumors are current of new saline domes discovered, but no definite or authentic information can be secured. The experts in charge of these explorations are decidedly reticent about their work.

The Roxana Petroleum Corp.'s No. 2 Allen ranch, Clemens Dome, in the southern part of Brazoria County, is drilling around 4,800 feet. The same company is rigging No. 1 State Land in a lake near the line of Chambers and Liberty Counties. The Texas Company has a location for No. 3 League.

The Marland Oil Co.'s No. 1 Hartfield, near Needville, Fort Bend County, is

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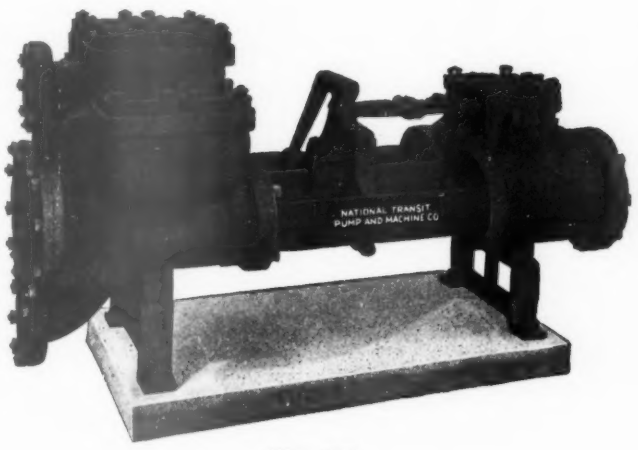

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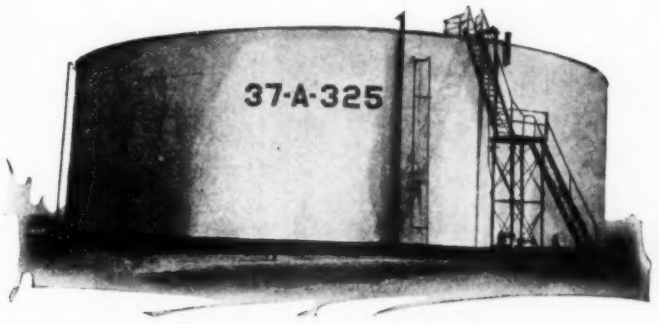

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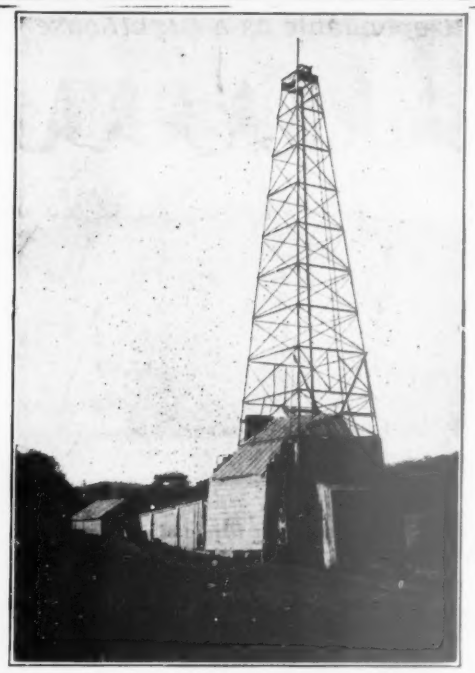

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drilling around 2,055 feet. The above tests are all drilling in territory over which the seismograph and torsional balance have been used.

At Stratton Ridge, in Brazoria County, an old dome, the Gulf Production Co. has started No. 1 Perry on the south side and the Stratton Ridge Syndicate No. 1 Dannebaum on the north side.

Around the Hawkins Dome, in Matagorda County, the Gulf Production Co.'s No. 5 Craig, is at 545 feet. No. 1 Parkinson is around 3,215 feet. The Humble Oil & Refining Co.'s No. 1 Robins, near Van Vleck, in the southeastern part of the county, is drilling around 2,700 feet in sandy lime and gumbo.

The Sun Oil Co.'s No. 3 Masterson, at Felcia, Liberty County, is fishing at 2,550 feet.

At Big Hill Dome, Jefferson County, an old favorite for wildcatting, the Houston Oil Co.'s No. 3 Dyson-Sun is drilling below 2,234 feet. At Fannette Dome, a newly discovered uplift a short distance southwest of Beaumont, the Gulf Production Co.'s No. 2 Bordages is below 4,350 feet in hard sand.

The report that the Brain Oil Co. was drilling north of Spring, Harris County, was an error. A derrick is up but no hole drilled yet. Bancroft and others' No. 1 Haney, east of Elena, is idle. Kelly and others' No. 1 Lipper, near Aldine, is around 2,700 feet. Gwynn's No. 1 Cage, near Huffman, is around 900 feet.

Humphrey Corp. and J. W. Riche's joint No. 1 Malone, Wharton County, is around 1,123 feet.

Development work in the once-active Boling Pool has dwindled to a few rigs. The Sun Oil Co. is drilling No. 1 Farmer on the northeast flank at 1,365 feet and The Texas Company's No. 1 Farmer, on the same side, is around 2,230 feet. A core at 2,210 feet showed some gas. The same company is rigging No. 2 Felder.

POSSIBILITIES OF PRODUCTION AT SEAL BEACH

(Continued from Page 98)

The new Seal Beach Field lies about a mile east of the exclusive residential Belmont Heights district and about the same distance southeast of Alamitos Heights, which is also a residential district within the city limits of Long Beach. These two knolls are regarded with considerable favor by oil men in general but the city council has consistently refused to lift the prevailing restrictions taking the stand that it would be detrimental to the best interests of the community to do so. Several operators are considering the advisability of resorting to court action unless the matter is submitted to a vote of the people, and it is quite likely that some action will be taken immediately. The hostile attitude of the city dads and the apparent desire of many residents to prevent any further drilling within the corporate limits practically precludes any work in Belmont Heights, although some concessions might be made in Alamitos Heights, west of the new field. There is a slight possibility that Recreation Park, which parallels what is believed to be the axis of the new structure, might be opened up for the drill unless the donor decides otherwise. I am of the opnion that some satisfactory arrangements might be made with the Bixby estate whereby this promising looking piece of acreage might be drilled up for the mutual benefit of the city of Long Beach and the estate of the original owner. Nothing along this line is possible for some time, however, at least not until the area is absolutely proven up as highly productive.

Conservative Development

The importance of any new field always lies in its possible effect on crude oil production and, while the Seal Beach district will probably be a prolific one, it should not cause any anxiety among the industry as it will be developed according to well established oil field practice which will mitigate against its having any depressing effect on conditions in general. It should, however, be doing at least 10,000 bbls. a day by the end of the year, as both the Standard and Marland are expected to begin work within the next few weeks on their prospective leases. It will be interesting to watch development work in this new area during the next several months not only with respect to the location of the various wells but also the markers and completion depth of each well.

The estimate made above that this field would be doing around 10,000 bbls. a day by the end of the year is dependent of course upon the amount of work undertaken during this period and the results attained. It would not be at all surprising if the field was doing twice this figure as the discovery well is believed to be at least half a mile from the apex of the structure. If this is correct, we might find the Marland bringing in 3,000 and 4,000-bbl. wells and it only takes a few of this caliber to build up a substantial production. Then, too, it must be remembered that the discovery well only has a 20-foot penetration and is not yet properly finished, inasmuch as it blew in prematurely while a casing test was being made following a second cement job. Another hundred feet of hole would make a big difference in this instance and undoubtedly result in a much higher output in a well more favorably located. Development of this new field should cause no alarm, however, as far as the Marland and Standard are concerned since each of these companies will work in harmony for the best interests of the industry. The only disturbing factor lies in the possibility of removing the drilling restrictions in the area adjacent to the field, which would open up a considerable number of lots and small acreage for town lot drilling. This seems rather remote at present but then one can never tell what the future might bring forth. California courts have sustained zoning laws in several instances and it looks as though the town lot section will remain restricted unless the people vote otherwise. Surely no consideration can be expected at the hands of the city council as this body has assumed a very antagonistic attitude toward the oil industry.

Deeper Zone Possible

The development of a productive sand at 4,427 feet has led to no end of discussion as to the probability of securing deeper production at Seal Beach and, while this is only a matter of conjecture and personal opinion based on the belief that this field is another Long Beach, it is logical to assume that a deeper and better sand will eventually be developed. For the present, however, it can be dismissed from consideration as it is of no particular importance except in that it might prove a valuable reserve for the future. While on this subject, I should like to call attention to another area which will undoubtedly come in for some play within the next few months by either the Shell or Marland Reference is made particularly to that acreage lying some 2 miles southeast of Seal Beach and a similar distance northwest of Huntington Beach. This land is worthy of a thorough test and, since the Shell and Marland have most of the land under lease, it is assumed that one or the other will do the necessary prospecting within the next few months.

Before closing this brief summary of conditions in the Seal Beach area, it would be amiss to pass up the general production situation since this field is expected to add some 5,000 or 10,000 bbls. daily to California's production between now and the close of 1926. Early this year the writer predicted that the State's total daily crude production could not be expected to drop below the 600,000-bbl. mark before next year and in making a casual estimate this morning of anticipated new production I have come to the conclusion that California operators are facing a period of increased production during the next six months, unless of course drilling is cut down in the meantime. This will carry us up through the early part of 1927, although of course it is quite possible that something will be done toward curbing all unnecessary drilling before the situation becomes alarming. Practically every field in the State, with the exception of Seal Beach, Huntington Beach, Ventura Ave-

nue, Mount Poso and Long Beach, has reached the settled stage and, while some might register further declines others are expected to show slight gains due to new drilling. Long Beach should start falling off now that the development peak has been passed in the northwest extension but on the other hand Santa Fe Springs and one or two of the older fields should show slight increases due to additional drilling and the use of improved pumping equipment. The several conservation plants under construction should also tend to maintain a high production as preliminary work to date has indicated that this dry gas when forced into the formations has resulted in increased crude production.

Outlook in Other Fields

New work in the Mount Poso area will not have much bearing on the production situation during the next six months since this field yields a low gravity oil which is not particularly adaptable for refining purposes at present low prices. Ventura Avenue, however, should be an important factor during this period as there are some 15 wells drilling at present which, when finished, probably within the next 90 days, should boost this field's output at least 20,000 bbls. daily. In addition to this number there are at least 10 more which, if drilling is continued at the present rate, should be finished shortly after the first of next year, if not sooner. The Associated is credited with five of the number expected to be finished within the next 90 days, while the Shell has six and the General Petroleum four.

Allowing for a normal decline, these wells if they come in doing anything like their predecessors, will boost the present field production of 45,000 bbls. daily to well above the 65,000-bbl. mark. At Huntington Beach where the California Petroleum recently finished a flowing well in the northern part of the field and extended the productive limits about a mile, a town lot development program is already under way in the southwestern part of the district. The California Petroleum's well will probably not lead to any considerable drilling as this company and the Standard are about the only ones which will benefit by this discovery. In the southwest extension, however, conditions are altogether different in that it's every man for himself.

The Superior's No. 1 Jones in this area recently proved the existence of a shallow sand at 3,065 feet which is productive of 300-bbl. wells. It is not this particular sand which is causing the marketing companies some anxiety, as this zone would not be able to sustain town lot drilling because it does not afford a sufficient penetration. Practically every operator drilling in the extension, and there are some 30 rigs already up, expects to pick up a deep zone which should yield 500-bbl. wells. And this expectation is not to be laughed at as it is the general consensus of opinion that there is every reason to believe that a good sand will be developed similar to that underlying the Standard's lease "B" to the north. As evidence of this, witness the action of the Standard in starting four wells to protect its town lot holdings from undue drainage. I am of the opinion that we can expect at least a 10,000-bbl. increase in the production of Huntington Beach around the end of the year. This will bring the field's output up to 55,000 bbls. daily. A good deal depends upon the action of the major companies between now and the close of 1926 as the situation is entirely in their hands inasmuch as most of the new production will come from Ventura Avenue.

California 650,000 Bbls. Daily

Unless a little caution is used California will be producing in excess of 650,000 bbls. a day within the next six months and possibly sooner. This will probably not precipitate any unusual hardship on California marketing companies as tanker shipments to Atlantic and Gulf ports will probably continue all during this period, but it will, however, retard recovery within the industry and some companies may find it necessary to begin storing again as consumption during the winter months is considerably lower than at present. The existing price structure is not any too stable on the Pacific Coast and it would not take very much to disrupt conditions. The refined oil market is very weak and with competition getting keener each day the outlook is not any too good.

N. LOUISIANA-ARKANSAS

(Continued from Page 48)

at 2,150 feet at No. 5-B. Magnolia's No. 2 Halsey, Section 20-17-16, is drilling at 1,850 feet; No. 3 at 203 feet. Six-inch was cemented at 2,070 feet at Magnolia's No. 2 Slaughter, Section 8-17-16. Six-inch was cemented at 2,145 feet at J. L. Meek's No. 1 Miller, Section 15-17-16. Rovenger's No. 7 Dumas, Section 9-17-16, is drilling at 200 feet, and a derrick is up for No. 1-B Dumas, SW cor. NE NW, Section 22-17-16. Rovenger's No. 1 Snyder, Section 22-17-16, is drilling at 2,025 feet. Six-inch was cemented at 2,056 feet at Roxana's No. 2 Willett, Section 3-17-16. Southern Oil Co.'s No. 1 Tooker, NW cor. E half SW SW, Section 3-17-16, is drilling at 450 feet.

Ouachita County

Standard Oil Co.'s No. 10 Murphy, Section 20-15-15, brightened Smackover on the Ouachita side when it was completed at 2,610-28 feet for a 120-bbl. pumper. Sun Oil Co.'s No. 3 Hardin, Section 27-15-16, is pumping 74 bbls. from 2,264 feet. The Texas Company's No. 17 Berry, Section 33-15-15, is pumping 350 bbls. of fluid, 98 per cent salt water from sand at 2,367-68 feet. Magnolia's No. 4 Watson, Section 31-15-19, is pumping 5 bbls. from sand at 2,170-80 feet. Magna Production Co.'s No. 4-B Rhoten, Section 32-15-15, is pumping 60 bbls. of fluid, 13 per cent salt water and 7 per cent b.s. from sand at 2,583-90 feet.

W. H. Copenhaven's No. 1 Berg, Section 13-15-17, is drilling at 930 feet. Six-inch casing was cemented at 2,676 feet at Gulf's No. 20-A Umsted, Section 33-15-15, and No. 21-A is drilling at 921 feet. Casing was cemented at 2,363 feet at Houston Oil Corp.'s No. 2 Hinton, Section 5-16-15. Humble's No. 10 Hildebrandt, Section 28-15-15, is drilling at 2,250 feet. Imperial's No. 10 McClanahan, Section 6-16-15, had sand at 2,549-54 feet and is waiting for a standard rig. The hole was junked at 1,911 feet at W. R. Keever's No. 2 Neeley, Section 27-15-16, and the derrick skidded 20 feet north for a new hole.

J. D. Reynolds' No. 1 Howell, Section 15-14-18, is being bailed to test at 1,864-70 feet, and his No. 3 Ratch and Cartier, Section 2-14-18, is drilling at 1,300 feet. A rig is up to deepen Sun Oil Co.'s No. 2 Hardin, Section 22-15-16. Sure Oil Co.'s No. 4 Snyder, Section 34-15-15, is a rig. Woodley Petroleum Co.'s No. 5 Richardson, Section 29-15-15, is drilling at 2,315 feet.

In Stephens district, Louisiana Oil Refining Corp.'s No. 1 Culp, Section 22-15-19, was dry at 1,460-98 feet and formations are being cored at 1,498-99 feet. Arco Oil Co.'s No. 1 Davis, Section 22-15-19, tested salt water in sand at 1,559-60½ feet. Ohio's No. 1 J. M. Curry, NW cor. SW, Section 32-15-19, is drilling at 360 feet.

Columbia County

R. W. Aarnes' No. 2 Brown, Section 13-15-20, in the Stephens Field, is a deep sand failure and was junked and abandoned at 3,590 feet. Gorden and associates' No. 6 Jones, Section 1-16-20, is waiting for 6-inch casing to set at 2,200 feet, and a derrick is up for No. 7, SW NE NE.

Nevada County

Autrey Oil Co.'s No. 6 Womack, Section 10-14-21, in the Nevada Pool, was finished in sand at 1,212-25 feet for a 50-bbl. pumper. A revival of drilling operations in that field in the past few weeks is bringing Nevada County back into the limelight. Autrey Oil Co.'s No. 1 Wallace, Section 11-14-21, is a derrick. Bemis and associates' No. 1 Ellis, Section 2-14-21, is being rigged. Furen and associates' No. 1 Groves, Section 2-14-21, is drilling at 840 feet. Humble's No. 4 Bodcau, Section 10-14-21, is drilling in hard lime at 2,570 feet. Humble's No.

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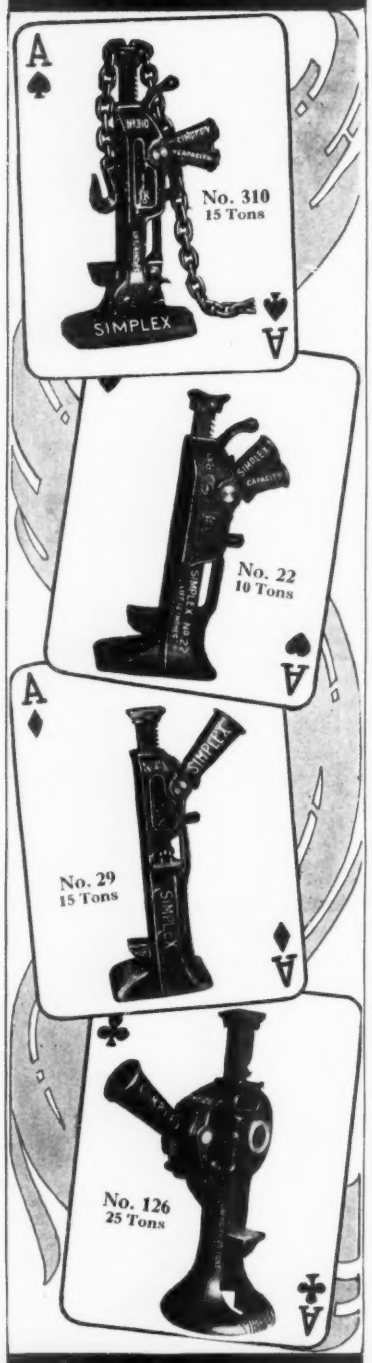

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At Your Supply House

3-A Ellis, Section 2-14-21, is drilling at 912 feet. Zing and associates' No. 1 Moss, Section 12-14-21, is being rigged.

WILDCAT OPERATIONS

ARKANSAS

Bradley County

Magnolia Petroleum Co.'s No. 1 Arkansas Timber, Section 33-15-11, cored sandy rock at 1,500 feet. McMurray and associates' No. 1 Southern Lumber Co., Section 7-15-11, is drilling at 1,900 feet. Wingfield and associates' No. 1 Southern, Section 2-16-12, has spudded.

Calhoun County

Delmar Oil Co.'s No. 1 Guidor, Section 16-11-14, is waiting for 15½-inch casing to set at 100 feet.

Cleveland County

Kingland Oil Co.'s No. 1 R. Hall, Section 31-10-10, is drilling at 950 feet.

Lafayette County

The Texas Company's No. 1 Colvin, Section 14-17-24, is drilling in gumbo at 2,590 feet.

Little River County

Greason and associates' No. 1 Waldrop, Section 4-13-31, is drilling in sand rock at 1,371 feet.

Miller County

Gulf Refining Co.'s No. 1 Dorsey, Section 27-17-26, is drilling in lime at 1,782 feet.

Union County

Arkansas Drilling Co.'s No. 1 Townes, Section 34-19-11, is being cored at 2,285 feet. Jones and Murphy's No. 1 Loutre Shingle Co., Section 5-19-14, was dry in sand at 2,165-79 feet and is drilling ahead at 2,235 feet. Matthews and associates' No. 1 Lewis, Section 14-19-12, is drilling at 625 feet. Natural Gas & Fuel Corp. and Atlantic's No. 1 Taylor, Section 23-18-17, cored salt water sand at 2,045 feet and is reaming to the bottom at 2,064 feet. Simms Oil Co.'s No. 1 Simmons, Section 9-18-13, was dry in the Nacatoch topped at 2,196 feet and is drilling ahead at 2,251 feet. A. H. Stoltz's No. 1 Wait, Section 4-18-16, is drilling at 1,897 feet. Walber and associates' No. 2 Cordell, Section 6-19-13, is being swabbed to test at 2,511-25 feet. Wingfield and associates' No. 1 Galligher, Section 10-17-17, is drilling at 2,745 feet. Same operators' No. 1 McGough, Section 22-17-13, is drilling at 40 feet.

LOUISIANA

Bienville Parish

Woodley and Collins' No. 1 Thomas, Section 23-16-10, topped the Nacatoch sand at 1,011 feet, and 6-inch with a packer was set. The test was dry to 1,013 feet and is to be deepened.

Bossier Parish

Doern and associates' No. 1 Bollinger, Section 9-22-11, had sand at 2,658 feet and 8¼-inch casing was cemented on top of the sand. A rig is being moved in for Tubbs and associates' No. 1 Jacobs, Section 26-20-13. Woodley and Collins' No. 1 Antria, Section 4-21-11, is drilling at 700 feet. Woodley and Collins' No. 1 L. & A., Section 14-23-12, was dry and abandoned at 3,114 feet.

Caldwell Parish

Humble's No. 3-A L. & A., 1,320 feet south and 800 feet east, NW cor. Section 25-11-3e, is being rigged up. Southern Crude Oil Purchasing Co.'s No. 2 Caldwell, Section 1-13-5e, is drilling at 125 feet.

Claiborne Parish

Gilliland and Ramsey's No. 1-D Taylor, Section 14-23-8, is drilling in shale and shell at 4,514 feet. Gulf's No. 1 Critchton, Section 35-19-8, is drilling in shale at 1,704 feet. The liner is being set at Triangle Drilling Co.'s No. 1 Keen, Section 7-19-5, to test a showing at 4,505-06 feet.

Grant Parish

Tunica Petroleum Co.'s No. 5 L. & A., Section 16-8-1e, registered another flexure failure at 1,944 feet. Bradley and Cozart's No. 1 Holmes, Section 16-9-1e, has been temporarily abandoned at 1,614 feet. No test was made. Humble's No. 10-A L. & A., Section 13-9-2w, is drilling at 1,570 feet; No. 13-A, Section 23-9-1w, is drilling at 1,118 feet, and No. 1-A Eden-born, Section 30-9-2w, is coring green shale at 1,721 feet. Holmes and associates' No. 1 Holmes, Section 17-9-1e, is a rig. The Texas Company's No. 1 Swope, Section 16-9-1e, is in 8 feet of sand topped at 1,573 feet and 6-inch casing was cemented at 1,570 feet. Location was made for Tunica Petroleum Co.'s No. 8 L. & A., 1,020 feet west and 300 feet north, SE NE, Section 11-8-2w, and for No. 9 L. & A., 1,020 feet south and 300 feet west, NE cor. SE. Section 3-8-2w, and No. 10 L. & A., Section 8-8-1w, is a derrick pattern.

DeSoto Parish

Dixie Oil Co.'s No. 1 Jenkins, Section 9-12-11, is drilling in lime at 4,160 feet. Magnolia's No. 1 Bond, Section 27-12-11, is drilling in lime at 3,659 feet. Peer Oil Corp.'s No. 1 Woolums, Section 23-13-13, is drilling in gumbo at 2,110 feet. Snapp and associates' No. 1 Flores, Section 27-11-11, is drilling in shale at 710 feet.

Jackson Parish

Charles A. Ferguson's No. 1 Martin, Section 5-15-1e, is drilling in gumbo at 1,675 feet. El Dorado Chief Oil Co.'s No. 1 Jones, Section 3-14-4w, is drilling at 200 feet. Grigsby & Co.'s No. 1 Adams, Section 22-17-4w, is drilling at 240 feet. Ten-inch casing was set at 125 feet, and Clarence Houseman's No. 1 Horton, Section 34-15-3w, is shut down at 400 feet. Louisiana Petroleum Co.'s No. 1 Davis, Section 20-16-3w, is drilling in shale and boulders at 1,350 feet. Raymond and associates' No. 1 Davis, Section 13-16-2e, is drilling at 1,450 feet.

Lincoln Parish

Buckley and Palmer's No. 1 Davis, Section 12-20-3w, is fishing for the drill stem at 2,160 feet.

Natchitoches Parish

R. E. Davison and associates' No. 1 Williams, Section 31-8-5, is drilling in gumbo at 1,600 feet. Forrest, trustee's No. 2 Ayers, Section 3-13-7, is drilling at 1,260 feet. J. B. Greer's No. 1 L. L. L. L. Co., 1,020 feet north and 1,020 feet west center Section 6-5-7w, is a rig. Ohio Oil Co.'s No. 1 L. L. L. L. L., 1,020 feet south and 1,020 feet west, NE NW, Section 20-8-8w, is a derrick pattern.

Rapides Parish

Seip and associates' No. 1 J. F. Ball, Section 41-4n-2w, is a rig.

Red River Parish

Alden Oil Co.'s No. 1 Powell, Section 13-11-10, is drilling in rock at 700 feet. Carnahan and Kyle's No. 2 Hollingworth, Section 24-12-11, a geological test, was abandoned in salt water sand at 915 feet.

Richland Parish

Gulf Refining Co.'s No. 1 Ches-Wyman, Section 23-18-8e, set 10-inch at 315 feet and is drilling in rock at 902 feet.

Sabine Parish

L. M. Emlet's No. 7 Bowman, Section 14-7-14, is drilling in shale at 1,416 feet. Godchaux and associates' No. 1 Nona Mills, Section 12-4-13, is a derrick. A rig is being moved in for Magnolia's No. 1 L. L. L. L. Co., Section 11-6-11.

Winn Parish

Ohio Oil Co. junked the hole at 1,556 feet at No. 1 Edenborn, Section 4-12-1w, and skidded the rig 75 feet south for the second hole. No. 1 had a gas blowout at 1,480 feet. O'Neill and Schuman's No. 1 Albritton, Section 27-10-1e, missed the sand and was abandoned at 1,645 feet.

LaSalle Parish

Humble Oil & Refining Co.'s No. 2-A Louisiana Central, Section 22-11-3e, was dry and abandoned at 1,756 feet. Location was staked for Humble's No. 3 Louisiana Central, 800 feet east and 1,320 feet south, NW cor. Section 25-11-3e. Location was staked for N. C. Hudson's, trustee, No. 1 Urania, SE NE NW, Section 6-10-2e. Jena Oil Corp.'s No. 1 White Sulphur, Section 23-8-4e, is shut down at 103 feet. Tunica Petroleum Co.'s No. 4 L. & A., Section 15-9-3e, is drilling at 250 feet. Tunica's No. 6 L. & A., Section 22-9-2e, is drilling in sandy shale at 2,140 feet, and No. 7 L. & A., Section 1-8-1e, is being rigged. Vacuum Oil Co.'s No. 1 Louisiana Central, Section 13-10-2e, is coring at 1,610 feet.

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KANSAS FIELDS

(Continued from Page 53)

feet. Safford and others' No. 8 Safford, SE SE SE, Section 26-27-4e, had sand at 2,036-78 feet and made 70 bbls. of oil. Sandy Hall and others' No. 1 C. B. Brower, NE NW NW, Section 21-27-5e, dry and abandoned at 3,168 feet. Kismet Oil Co. has a dry hole in No. 1 T. Dixon, SW SE NE, Section 11-27-6e. Total depth 3,106 feet. White Eagle's No. 1 F. W. Stewart, SE SE SW, Section 12-27-7e, was shot with 120 quarts from sand at 2,650-69 feet, swabbed 232 bbls. oil first day, 200 bbls. second day and 150 bbls. third day. Connell and others' No. 1 Getty, SE SW, Section 34-25-5e, dry and abandoned at 2,700 feet.

Greenwood County Completions

Roth-Faurot's No. 1 D. Beaumont, SW SE NW, Section 33-27-9e, is dry and abandoned at 2,905 feet. Smith & Wahn and others' No. 1 C. Dinnick, NE NW NE, Section 27-26-9e, completed for 50 bbls. naturally from sand at 2,260-2,320 feet. Mid-Kansas Oil & Gas Co.'s No. 8 Hoffman, SW NE SW, Section 30-25-9e, made 75 bbls. after a shot of 60 quarts from sand at 2,415-63 feet.

M. J. Sullivan's No. 1 Nixon, SW SW SE, Section 19-24-10e, is dry and abandoned at 2,465 feet. Manhattan & Harwood & Winters' No. 3 Lindamond, NW SE NE, Section 19-24-11e, shot with 60 quarts from sand at 1,820-46 feet, making 100 bbls. water and 300 bbls. of oil. Ritchey & Moore's No. 6 Lindamond, NW NE SW, Section 19-24-11e, is dry and abandoned at 1,963 feet. Ward-McGinnis' No. 7-B Wiggins, SW NW SW, Section 30-24-11e, made 200 bbls. of oil after a 100-quart shot from sand at 1,808-32 feet. White Eagle's No. 1 Hartley, NW SW NW, Section 1-23-9e, shot with 260 quarts from sand at 2,373-2,453 feet, and made 10 bbls. Kismet Oil Co.'s No. 1 G. Noller, SW NW NE, Section 3-23-9e, dry and abandoned at 2,630 feet. Ward-McGinnis's No. 4 A. E. Smith, SW NW SW, Section 11-23-9e, completed for 150 bbls. after a 100-quart shot from sand at 2,327-71 feet. Rhoades & Able have a dry hole at 2,580 feet in No. 1 E. Marshall, NE NE SW, Section 25-23-9e. Mid-Continent Petroleum Corp.'s No. 1 Ellis, north and west of center of Section 26-23-11e, dry and abandoned at 2,085 feet. Haverhill Petroleum Co.'s No. 11 Inthurm, CWL SE SE, Section 4-23-13e, shot with 120 quarts from sand 1,578-1,614 feet, made 25 bbls. Mid-Continent Petroleum Corp.'s No. 6-A Dehlinger, SW NE NE, Section 28-23-13e, shot with 60 quarts from sand at 1,707-27 feet and made 40 bbls. Phillips Petroleum Co.'s No. 1 William Green, NE NE NE, Section 11-22-10e, made 100 bbls. after a 180-quart shot from sand at 2,025-60 feet. Sinclair Oil & Gas Co.'s No. 42 Browning, C SE SW, Section 20-22-10e, completed for 100 bbls. after shot with 10, 20 and 30 quarts from sand at 2,295-2,365 feet. Empire Gas & Fuel Co.'s No. 6 Duby, NW SW SW, Section 14-22-11e, made 75 bbls. after a shot of 80 quarts from sand at 1,888-1,915 feet. Same company's No. 5 Fankhouser, SE SW SE, Section 4-22-12e, shot with 60 quarts from sand at 1,790-1,829 feet, and made 150 bbls. T. K. Simmons and others' No. 1 Holderman, NW NW NE, Section 9-22-12e, shot with 160 quarts from sand at 1,779-1,823 feet, made 70 bbls.

Greenwood County New Work

Continental Oil Co. is rigging up No. 2 J. Wilkinson, NE NE NE, Section 23-26-9e. Allison & Fitzwilliam's No. 1-A Moore, SW NW SW, Section 36-26-10e, spudding. Roth-Faurot are rigging up No. 2 C. H. Welch, SE SE NW, Section 13-25-8e. Prairie Oil & Gas Co.'s No. 1 Gaffney, SE SE SE, Section 7-24-11e, is a rig. Ward-McGinnis in Section 30-24-11e, No. 8-B Wiggins, NW SW SW, is drilling at 600 feet. No. 9-B, NW NW SW, moving in timbers; No. 10-B, SW SW SW, also moving in timbers. Manhattan Oil Co.'s No. 1 J. L. McDowell, SE NW NE, Section 12-23-8e, drilling at 350 feet. Skelly Oil Co.'s No. 5 Green, NW SE NE, Section 15-23-9e, drilling at 350 feet. Roth-Faurot's No. 2, CEL NW NW, Section 15-23-10e, drilling at 300 feet. The Texas Company is moving in timbers for No. 1 Burkett, SW NE SW, Section 16-23-11e. Troxell's No. 1 W. H. Booth, SE SW NE, Section 19-23-11e, drilling at 900 feet. Mid-Continent Petroleum Corp.'s No. 10 Shadel, CEL SE SW, Section 15-23-13e, drilling at 340 feet. Phillips Petroleum Co.'s No. 2 William Green, SE NE NE, Section 11-22-10e, drilling at 560 feet. In Section 12-22-10e, Hazlett and others' No. 21 Bitler, NW SW SE, is drilling at 280 feet and moving in timbers for No. 22, NW SW SE. White Drilling Co.'s No. 1 W. H. Homer, SW SW SE, Section 13-22-11e, is drilling at 970 feet. In Section 32-22-11e, York State Oil Co. is spudding in No. 12 De Malorie, NE SW NW, and No. 13-C DeMalorie, NE SW NW, is a rig. Empire Gas & Fuel Co.'s No. 6 Fankhouser, SW SE SE, Section 4-22-12e, is drilling at 300 feet and No. 7, NE SE SE, drilling at 200 feet. Prairie has made location for No. 2 Walstein, SW SW NE, Section 2-21-6w, and for No. 3, NE SE NW.

Lyon County New Work

Transcontinental Oil Co.'s No. 6 J. Atyeo, SW SW SW, Section 20-21-10e, is drilling at 300 feet. Chris Sheedy and others have spudded No. 13 Atyeo, NE SW SW, Section 31-21-10e.

Lyon County Completions

Theta Oil Co.'s No. 2 C. S. Jones, NE SW NW, Section 30-21-10e, shot with 100 quarts from sand at 2,115-76 feet, made 100 bbls. Its No. 3, SE SE NW, shot with 100 quarts from sand at 2,200-63 feet and made 20 bbls. Frank Swift's No. 1 Brewer, NE NE NE, Section 2-21-12e, dry and abandoned at 2,002 feet. W. H. Swartz's No. 2 Tiles, SE SE SW, Section 29-21-12e, dry and abandoned at 2010 feet. Landon & Phillips Petroleum Co. have a dry hole at 2,050 feet in No. 1 Hind, NW NW SW, Section 30-21-12e.

Marion County Completions

Hays & Wells' No. 1 Bixler, NE NE NW, Section 12-20-4e, is dry and abandoned at 2,600 feet. Stewart & Gear have a dry hole at 2,378 feet in No. 1 Wiley, SE SE SW, Section 33-20-5e.

CALIFORNIA RECEIPTS AND PETROLEUM IMPORTS

Imports of crude and refined oils at the principal United States ports for the week ended August 7 totaled 1,740,000 bbls., a daily average of 248,571 bbls., compared with 1,310,000 bbls., a daily average of 187,143 bbls. for the week ended July 31. and a daily average of 223,429 bbls. for the four weeks ended August 7.

	Week Ended August 7
At Atlantic Coast Ports—	
Baltimore	95,000
New York	867,000
Philadelphia	60,000
Others	173,000
Total	1,195,000
Daily average	170,714
At Gulf Coast Ports—	
Galveston District	110,000
New Orleans and Baton Rouge	385,000
Port Arthur and Sabine District	50,000
Total	545,000
Daily average	77,857
At All United States Ports—	
Total	1,740,000
Daily average	248,571
Daily average four weeks ended	223,429

Receipts of California crude and refined oils at Atlantic and Gulf Coast ports for the week ended August 7, totaled 876,000 bbls. a daily average of 125,143 bbls., against 417,000 bbls., a daily average of 59,571 bls. for the week ended July 31, and a daily average of 82,071 bbls. for the four weeks ended August 7.

	Week Ended August 7
At Atlantic Coast Ports—	
Baltimore	327,000
New York	254,000
Philadelphia	138,000
Others	157,000
Total	876,000
Daily average	125,143
Total Atlantic and Gulf Coast Ports	876,000
Daily average	125,143
Daily average four weeks ended	82,071
Distribution of total California oil receipts is as follows:	
Crude	643,000
Gasoline	80,000
Gas oil	95,000
Lubs	58,000
Total	876,000

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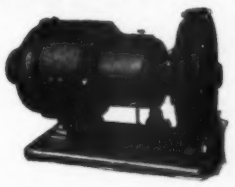

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FOR SALE—Wildcat drilling blocks and small leases in Western Texas Counties. Also offset acreage to drilling wells in Callahan, Jones, Shackelford Counties, Texas. Also land owners royalty in Winkler County. Allen Buell, Jr., Grace Hotel, Abilene, Texas.

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I HAVE LEASES, 160-acre tracts up, in Lipscomb and Hemphill Counties where the big play is now on at $2 to $3 per acre. New leases made direct from owner of land to you. Dr. W. R. German, Canadian, Texas.

LEASES—PRODUCTION

LEASE BARGAINS—Southwest Texas. 48,000 acres, Jeff Davis and Culberson Counties. Fronts on railroad; 10-year paid up lease; $2 per acre. Will sell part or all; good title. Wells drilling close to this property. Also 10,000 acres in Bexar County; 6,500 acres in Kendall County, Atascosa, Duval and others. Tell us your wants. Gulf Leasing Co., Brady Bldg., San Antonio, Tex.

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TEXAS PANHANDLE

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320-ACRE stock farm, all in cultivation; one-half mile from state highway, 1½ miles from prosperous little city; buildings and fences in first-class condition, especially constructed for raising cattle, sheep and hogs; hog house, 20 feet by 60 feet; horse barn, 64 by 58 feet; cattle barn, 34 by 94 feet; double corn crib, 20 by 60 feet; 200-ton Dickey silo; implement shed, 24 by 36 feet; open cattle shed, 24 by 70 feet; chicken house, 10 by 32 feet; new 8-room house, modern except lights, etc., $50,000 if taken at once; $25,000 cash, and balance to suit. For further particulars, write Box 96, Morrill, Kans.

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Good hunting and fishing. On Eleven Points River; 300 acres cultivated. Four sets buildings; heavy fence. Fine range. One-day shipment to St. Louis.
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I HAVE for sale 8,000 acres best farming land on South Plains along highway from Tahoka to Lubbock in tracts of 80 to 1,280 acres in body. Improved and unimproved. $40 to $60 per acre. Good terms W. C. Wells, Tahoka, Texas.

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XUM

Advances in Chicago Refined Market

Kerosenes Up One Cent Due to Buying of Large Companies. Fuel Oils Also Stronger. Gasolines Are Firm

By J. B. Waldo

CHICAGO, Aug. 14.—Reports as to the country-wide consumption of gasoline continue favorable from all parts of this territory and generally from all parts of the country. In the vicinity of this city, although the temperature has not been high, for the season of the year, the amount of night driving has been large and local distributors report a large gallonage. In the north woods the tourist season is now in full swing and the consumption of gasoline has increased largely.

This condition should rule with reasonably favorable weather over September and October. Talking of the possibilities for the demand over the fall season, an executive for one of the largest oil companies with distribution practically wherever gasoline is sold throughout the Central West, showed their sales record month by month for six years. August was the peak month for movement of gasoline to the public but the report also showed that during nearly every year of the six, their gallonage during September had been larger than during July and making a further comparison it was shown that during only one year of the six had the consumption for October fallen below that of June. If the best gasoline months of the year are the months beginning with June and ending with October, the two months following the peak month are better than the two months that precede August.

Sales at Lower Prices?

Yet in spite of this fact, which should be known to refiners and distributors alike, the disposition is to consider that the best part of the season is over with the end of August and to act accordingly. It is to be sincerely hoped that this year will be an exception and that the profits of the best part of the season so far as volume of sales is concerned be not sacrificed by unnecessary reductions in prices. Yet there have been some indications during the week that some owners of gasoline were willing to accept prices at less than seems to be a fair market price for their product in order to be able to book some business.

The movement has been in the spot market and while it seems to the writer that too much importance has been given to the action of a few sellers in this market, yet there has been a lot of talk going around regarding sales made at lower prices than the refiners generally were willing to name. One reason for this dullness in the spot market has doubtless been the number of distributors who are receiving the bulk of their supplies from contracts made early in the season.

Effect of Prices

Prices have been no great inducement in increasing sales. The sales manager for a refining organization said that his price was 11½ cents for Navy but so far as he could see he was selling as much in the spot market as others with a price of 11¼ cents for the same grade. In fact the part that is least pleasant in the situation is that the quoting of low prices for gasoline has not resulted in any real increase in business.

Reliable reports from the field indicate that the supply of gasoline is light, the demand and time of the year considered. Talking with the executive of a large oil company he said that refiners lacked the courage of their convictions, they talked of faith in the situation and went out from his office to cut their price for some small order. Time will tell who is right, but the trade should not forget that we still have two and one-half months of good demand ahead, according to reliable figures taken from the reports made of actual business done by a very great oil organization. It is not impossible that the same thing may occur in gasoline as happened in distillate in the spring, although the conditions under which the two products are made and sold are so unlike that there is little real parallel except as to the result on prices of a continued good demand and reduced stocks and output.

There has been little call for the higher tests and these have continued to drag and prices are weak. There has been more inquiry than usual for natural gasoline and some jobbers are using casinghead to give an added "pep" to their Navy grade to make it compare more advantageously to the new anti-knock gasolines. The inquiry for these is still active but they are wanted at the same price as U. S. Motor or a little more as the average jobber prefers not to handle an extra grade and simply wants to substitute an anti-knock gasoline for his regular grade. There has been a lot of talk of heavy buying by large companies but little evidence that it is more than talk. The Sinclair organization reports that their H. C. gasoline is meeting with a very favorable reception. It sells at 3 cents above the local tank-wagon price.

Gasoline Firmer

At the close of the week, the price situation seemed to be a little better. Most of the refiners were holding firmly at 11½ cents and several concerns that had been offering U. S. Motor gasoline at prices in some instance as low as 11 cents were out of the market. One of these stated that they had been obliged to take on a quantity of gasoline to secure a favorable contract for distillate and did not care to hold the gasoline. This product came from North Texas, it was stated. One of the Louisiana refiners wanted relief and sold several hundred cars in different markets at 11 cents for quick movement. Some gasoline, stated to be genuine Group 3 gasoline made from Oklahoma crude, was offered for prompt shipment at 11 cents and it was stated that it would pass every test for full U. S. Motor gasoline. In no case was the quantity large. Of course 25 cars is a good deal of gasoline for one jobber but it is not much in comparison with the daily shipments of a real refinery but the result in this market has been to make buyers doubt the ability of refiners to maintain their prices. As to a tankwagon decline, the possibility of any such during the present month is exceedingly remote in spite of the record of any number of preceding seasons to the contrary.

Standard Buys Kerosene

The "Fourth of July" effect in the market has been furnished by kerosene. It sky rocketed largely as the result of the placing of an order for 300 cars by the Standard Oil Co. The company went into the local market for 300 cars and stated that it would pay 8¼ cents for prompt shipment. What they wanted was spot oil. They had not succeeded in securing in this city a full 100 cars and more than one-half of these were from refiners who would only accept the order on condition that deliveries be made at the rate of a car or two a day. At the close of the week the full order had not been placed. This seemed convincing evidence that there was no supply of immediate kerosene. Most refiners withdrew all quotations and on August 13 the Standard advanced its tankwagon price 1 cent a gallon over the territory.

The present market is variously quoted at from 8½ to 9 cents with an upward tendency, and little available at any price for immediate delivery. The spot demand is not large but jobbers have made many inquiries and placed some business for delivery. On the other hand, some of the best jobbers are holding back their orders and state that they do not believe that the market will go any higher. Right at the close the bulk of the spot business was going at 8¾ to 9 cents with opinions divided as to whether the present prices would hold or advance a little more. Some point out that the present market is very close to U. S. Motor gasoline and the kerosene should be more profitable to run, which would tend to speed up the output.

Distillates Uncertain

Distillates are still vexing the minds of marketers and distributors alike. Of course the advance in kerosene has strengthened the distillate market to some extent, especially for the higher gravities. There is the same insistent demand for a contract with a stipulated price, not "at the market," and these are hard to land. Some distributors and some marketers have succeeded in making arrangements along these lines but there are many who still hold back both among buyers and sellers, although chiefly among the latter, for the beginning of the season is now so close that distributors are very anxious to have the matter settled. Some have bought for storage in the spot market and hope that the supplies that they are now taking in will last until the supply is larger and prices are more to their liking. The best posted refiners here asserted that the consumption will be much larger this season than last. They say that the number of burners has been greatly increased and that with anything like an average winter, the demand will be in excess of the supply. There seems some doubt of this as a whole although the quantity of distillate of the better grade may not be very adequate. Refiners will have something to offer that will burn in the average burner.

Talking with a local distributor as to the possibility of using blends such as gas oil and a distillate with a low flash to make the oil respond to the pilot in the burner, he said that this could be done but that the trouble right now was to get as light color as possible on the oils. He said that dark gas oil was out of line as to price with the light product and said that the demand was still marked for the light oils. This distributor claimed that he had been able to contract for 1,000,000 gallons of distillate for delivery over the season at 4½ cents but he thought that few had been able to do as well. The distributors here and in the country have not been asleep and there has been some buying for storage right along in a quiet way. Lots of 20 to 30 cars have come on the market and disappeared in some cases being taken in by leading country jobbers with storage. The Roxana, for one refiner, has made a number of contracts with jobbers over its territory at prices that should prove very satisfactory to the jobber if the market during the season moves as the refiners now expect it to do. For a good straw distillate with a low flash and 38-40 gravity the market is firm with 5¼ cents the low and sales made at 5½ cents. Some are asking 5¾ cents for spot on this product. The 36-38 gravity, if not too dark, sells at about a quarter of a cent less.

Gas Oil Firm

Gas oil is very firm, according to refiners, but if the refiner tries to sell it is not so firm, at least in this market where sales of dark gas oil were made at the close of the week between dealers at 4 cents with more to be had at that price. This oil was on the track and might be classed in a way as distress oil as it was not wanted right now but it was not piling up demurrage charges. There is an ample offering of cracked dark gas oil at 4 to 4⅛ cents but straw color or straight run product is scarce and prices range as high as 4½ cents. The demand is fairly active and some good sales have been made to utility and industrial concerns. The jobbers are also willing to buy but they want a straw color or light oil so that their takings are restricted both by the supply and the prices asked for the lighter product.

Fuel Oil Stronger

Fuel oil is decidedly stronger with refiners and quite a number of industrial concerns are in the market for their needs. Not only is the refiner going direct to the consumer but in at least two instances large industries have their buyers at work in the field searching for any lots that they can secure at the market or a little below. Other large industries are still holding back their orders and buying in small lots as they need the oil. The car equipment concerns which are large users when their business is good have almost no orders in their plants and very little in sight so that their oil purchases are light. Sales of 24-26 refinery fuel oil were made at $1.35 in this market but this is the bottom price at present and it is below the price placed on this product by many refiners. Some say that the best price for any fuel oil today at the refinery is $1.35. For the higher gravities the prices are so high that trading in them is at a standstill.

A sale of a car of 26-30 refinery fuel oil was reported at $1.55 and the seller thought that he had sold too low when he learned conditions. There is very little of the higher gravities offered and it is assumed that it is being cracked by refiners. Several large dealers stated that they did not know where to get a single car of 28-30 and anything above that goes as gas oil right now. With supplies reported by the Bureau of Mines to be increasing month by month, the trade wonders where the oil is and why it is so hard to buy and some figure that the September market may be easier for the buyer than August. Few would want to act on that viewpoint right now. "A crazy market" is the term applied to the situation as developed at the close of the week by one of the largest dealers. Smackover fuel is also very strong and the trade figures that with such large demands and restricted production present crude prices will hold even if Mid-Continent prices are cut. The local distributors are large buyers of Smackover fuel oil and they claim that many more industrial plants are using this oil than ever before. They say that almost any plant can use it by increasing the air pressure a little to break up the oil just as they are doing with the 16-18 and even 14-16 gravity refinery cracked fuel oils. There was a little Smackover available during the week at $1.22½ but this was all that could be picked up at less than $1.25 and many were holding for $1.27½.

Lubs Steady

Lubricating oils are moving steadily on contracts and the business is reported to be very satisfactory with a rather tight market on bright stocks. The industrial demand is just about fair. Another refiner began offering his product on this market during the week. The product was good but the price higher than that at which similar grades could be had in this market. Chicago is admitted to be a hard market for sellers of lubricating oils.

BIG DEMAND AND SMALLER STOCKS FEATURE EASTERN REFINED MARKET

By N. O. Fanning

New York Bureau, The Oil and Gas Journal, 30 Church Street, New York

NEW YORK, Aug. 14.—Increased consumption of gasoline and smaller stocks along Atlantic Coast distributing stations were the features of the eastern refined oil market situation during the past week. The long, hot spell which has been prevalent from Virginia north to Maine and taking in all the b'g gasoline-using territory of the north Atlantic, is telling on the gasoline supply. So far there has been more than three weeks of this weather without a single important break.

Just what position gasoline stocks are in at this moment is difficult to say, as reliable information on the subject is scarce. It is the belief, however, that there is plenty of gasoline in storage, although this is being depleted normally. The situation, however, calls for continued large production.

No Danger of Shortage

So far as the statistical position of the gasoline industry is concerned, marketers say that there is very remote likelihood of a shortage developing, so long as there is plenty of crude oil to run. Stocks are large enough all over the country to care for the needs for 60 days or more at the present high rate of consumption. The reason factors dwell on the crude oil situation, is that they see a possibility during the fall of a marked drop in domestic output.

The gasoline price situation remains about unchanged. Price wars are breaking out locally in some parts of Pennsylvania, New Jersey, New York and New England, but some marketers attribute much of this to the act'vity of retailers selling inferior "gas." They point out that only diluted gasoline can be sold on the Atlantic Coast at prices comparing with the Tulsa refinery market, at a profit. This seems self-evident.

Kerosene Strong

The kerosene market continued strong, due to various causes, one of which is the heavy tractor consumption of the commodity in the farm districts of the west. This is resulting in smaller supplies, which, coupled with larger use in oil burners and big exports, is forcing prices upward.

During the week most refiners advanced refinery kerosene ½ cent. Prime white is now quoted at 10 cents, with litt'e available at this price. Some factors are holding out for 10½ cents.

The Standard Oil Co. of New Jersey advanced export kerosene ¼ cent a gallon. Standard white is now 19.40 and water white 20.90. This is a new high level for the year.

Gas and Fuel Oil Firm

The market for gas and fuel oil is firm, with demand good. Prices have he'd steady so long that some factors are looking for an upturn before long, pointing out that the situation has been steadily improving.

Gas oil is still quoted at 6¾ cents at refinery, for tank car lots. For some time the trade has been looking for 7-cent gas oil.

Lubricants Unchanged

The lubricating oil market continues in a rather stable position. Prices have not been changed for some time, and the year as a whole has been characterized by the small range of this product. Red and pale oils have fluctuated within a cent or two, but cylinder oils, white neutrals and other special grades have hardly changed at all.

On the whole, the trend has been upward, and continues so. Lubricating oil is moving on a larger scale now in the automobile trade. Heavy industrial production all along the line has helped this branch of the trade.

Cylinder oils have been moving into export channels on a larger scale during the past few weeks.

Paraffin Wax

The wax market is still unchanged. Business is more active at present, at the best prices recently quoted.

The petroleum market remains unchanged, with dark green tending a little stronger. It is now held at 2 cents, but 1⅞ is about the best that can be done on current business, no trades at the former figure being recorded.

The Export Market

The oil export market here is steady. The chief feature of the past week was the advance, already mentioned, of a quarter of a cent a gallon in export kerosene in cases to 20.90 for water white and 19.90 for standard white.

Lubricating grease moved rather heavily during the past week, Germany being one of the lage buyers. Shipments for the week to various nations exceeded 1,000,000 pounds.

Paraffin wax was also a feature. One shipment of more than 5,000 bags to Italy swelled the total for the week considerably. Refined moved to the extent of 2,075,260 pounds for the week ended August 11, while 520,125 pounds of crude scale wax were shipped.

Kerosene moved heavily in cases, the total exportation for the week being placed at 3,337,540 gallons, as compared with 2,878,980 gallons the preceding week. There were no bulk shipments this week.

The following table shows principal exports of petroleum and petroleum products from New York reported during the past three weeks (figures in gallons unless otherwise noted):

	Week Ended		
Gasoline:	Aug. 11	Aug. 4	July 28
Bulk	.....	2,310,730	708,662
Barrels	100,000	.....	202,500
Cases	1,134,870	1,857,750	1,785,000
Kerosene:			
Bulk	.....	2,099,574	716,354
Cases	3,337,540	2,878,980	1,188,500
Fuel oil:			
Bulk	.....	2,447,900	.....
Lubricating oil:			
Bulk	.....	2,112,273	.....
Barrels	1,477,500	875,900	1,459,400
Cases	209,710	258,550	165,450
Lubricating grease:			
Barrels (lbs.)	1,163,250	245,000	607,500
Paraffin wax:			
Bags (lbs.)	2,075,260	630,740	3,266,680
Barrels (lbs.)	520,125	878,750	1,150,450
Petroleum asphalt:			
Barrels (lbs.)	766,175	.....	3,726,860

The foregoing figures include individual shipments of 500 bbls., 1,000 cases, or over.

Tanker Charter Market

The tanker charter market was active during the past week, and higher rates were noticeable for boats for September loading. There was an advance of about 2 cents a barrel in the Gulf to north Atlantic rate, and of 2 shillings a ton in the Gulf to United Kingdom-Continent route.

New fixtures included the following:

Tanker Atlantic Sun (Am.), 4,044 tons net, Gulf to Havre and Rouen, 28s. 9d., late August-early September loading.

Tanker Trimountain (Am.), 4,608 tons net, California to United Kingdom-Continent, 40s., October loading.

Tanker Silvanfield (Br.), gasoline, Gulf to two ports, French Atlantic, 28s. 6d., September loading.

Imports Large

The feature of the oil receipts at Atlantic ports during the past week was that of the continued heavy imports. These totaled 1,016,000 bbls., a daily average of 145,000 bbls. Of the total, 553,000 bbls., or 79,000 a day, came from Mexico. Imports from South America, however, reached a new high weekly record of 463,000 bbls., a daily average of 66,000 a day.

Receipts from California for the week were also large, amounting to 674,000 bbls., a daily average of 96,000 bbls., while receipts from the Gulf Coast fell off sharply to 1,943,000 bbls., a daily average of 278,000 bbls. This daily average represents a decline of 121,000 bbls. as compared with that of the preceding week, the week ended August 4.

The following table shows estimated daily average receipts of crude and refined oil by water at Atlantic Coast ports from the Gulf and Pacific Coasts of the United States, and imports, for the last three weeks; also monthly record for the last 12 months (figures in barrels):

	Week Ended		
	Aug. 11	Aug. 4	July 28
Gulf	278,000	399,000	403,000
Pacific	96,000	93,000	62,000
Imports	145,000	191,000	172,000
Total	519,000	683,000	637,000

Daily Averages by Months

1926:	Gulf	Pacific	Imports	Total
July	360,000	66,000	151,000	577,000
June	396,000	104,000	135,000	635,000
May	318,000	66,000	139,000	523,000
April	326,000	92,000	146,000	564,000
March	317,000	97,000	178,000	592,000
February	332,000	73,000	122,000	527,000
January	279,000	59,000	96,000	434,000
1925:				
December	298,000	56,000	103,000	457,000
November	259,000	36,000	92,000	387,000
October	249,000	36,000	102,000	387,000
September	306,000	66,000	76,000	448,000
August	291,000	54,000	90,000	435,000

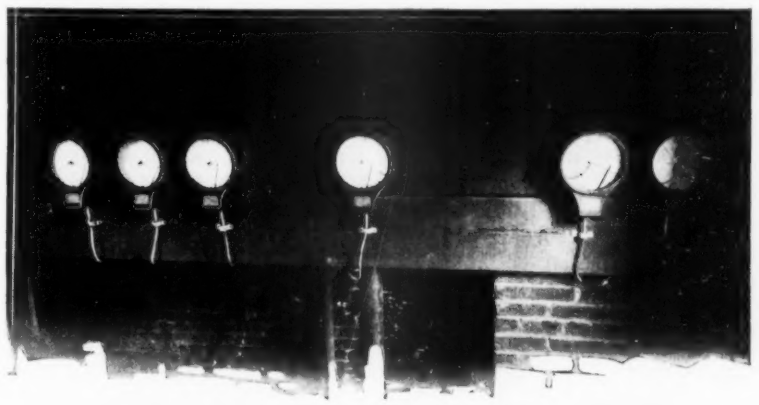
The foregoing estimates are based on the carrying capacity of incoming oil-laden tankers.

DEATHS IN CANADA

CHATHAM, Ont., Aug. 14.—One of the last of the pioneers of the Petrolia oil boom passed away recently in the person of Arthur Napper, aged 84. He came to Petrolia in 1860 before any extensive oil discoveries were made, but about the time Oil Springs experienced its first boom. He helped drill the famous "Old Hickory" gusher on the Colonel Schumacher property on the Marthaville side road, putting down the well with a springpole rig. Since 1881 he has made his home on the Napper farm, Concession 12, Enniskillen. Six sons survive, David being master mechanic for Imperial Oil, Ltd., at Sarnia.

William John Harvey, formerly well known among Canadian oil men, died recently at London, Ont., in his fifty-eighth year. For about five years he was government inspector of petroleum bounties, stationed at Petrolia.

William J. White died recently at Petrolia after a lingering illness. Mr. White was for many years employed by the Oil Well Supply Co. at Petrolia.



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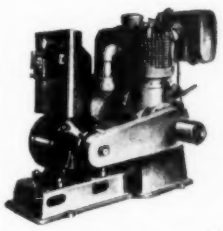

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Hydrocarbons in Natural Gasolines

Develop Accurate Method of Measuring Benzene, Toluene and Xylene Content of High Gravity Gasoline

By A. M. Erskine*
Hamilton College, Clinton, N. Y.

The work covered by this paper developed from the need of an accurate method for determining the small amounts of the individual aromatic hydrocarbons in natural gas gasoline. The general object was the study of the lowering of the critical solution temperature of nitrobenzene and gasoline due to the presence of aromatic hydrocarbons and the application of the relationship as a method for determining with a greater accuracy than by previous methods the individual contents of benzene, toluene and xylene in gasoline.

Preliminary Experiments

From Timmermans' study of the hexane-nitrobenzene system one would expect gasoline to give a critical solution temperature in nitrobenzene at around room temperature. This was tried out by shaking together in test tubes three mixtures of a crude charcoal natural gas gasoline and pure nitrobenzene containing, respectively, 44.9, 48.75 and 52.1 per cent by weight of gasoline. The solution temperatures (appearance of turbidity) were found to be 19.95, 19.55 and 19.3 degrees Centigrade, respectively.

Similar determinations were then made on small portions of the six pure hydrocarbons isolated by Anderson and Erskine from natural gas gasoline and the critical solution temperatures were found at approximately equal weights of hydrocarbon and nitrobenzene to be as follows: Normal pentane, 24.5 degrees Centigrade; isopentane, 31.25 degrees Centigrade;

Figure 1

normal hexane, 14.8 degrees Centigrade; isohexane, 24.05 degrees Centigrade; normal heptane, 11.5 degrees Centigrade, and isoheptane, 18.05 degrees Centigrade.

By analogy from the work of Chavanne and Simon on gasoline-aniline mixtures, it would be expected that the presence of aromatic hydrocarbons would lower the critical solution temperature of gasoline and nitrobenzene. Theoretically, also since aromatics are soluble in both paraffin hydrocarbons and nitrobenzene, the addition of the former should lower the critical solution temperature of the latter. That this is the case is shown by the data in Table I, which were obtained from weighed mixtures in sealed tubes of pure benzene, pure nitrobenzene, and the above gasoline after treatment with mixed acid to remove aromatics.

Table I—Effect of Benzene on Solubility Temperature of Gasoline-Nitrobenzene Mixture

Percentage Weights			Solubility temperature
Benzene	Gasoline	Nitrobenzene	°C.
0.00	50.51	49.49	20.29
0.98	49.67	49.36	17.61
2.02	49.84	48.13	15.15
4.83	47.69	47.48	8.50
10.26	44.76	44.97	— 4.7
14.67	43.51	41.82	—16.0

Preparation of Crude Fractions

The gasoline used in the following experiments was a straight absorption natural gas gasoline from the same source —Strong plant, the Mars Co., Van, Pa., —as that used by Anderson and Erskine. In order to obtain crude fractions, each containing a single aromatic hydrocarbon which could be used to be aromatic-free fractions of the proper range for the various synthetic experiments and test analyses, the original sample, specific gravity 0.6721 (15.56/15.56 degrees Centigrade.), was separated into the three fractions, 50-95 degrees Centigrade, 95-124 degrees Centigrade, and the residue above 124 degrees Centigrade (760 m.m.) The fractionating apparatus was a Hempel column of 2.5 cm. inside diameter filled to a depth of 56 cm. with glass Raschig rings about 0.6 cm. long. The column was wrapped with two layers of asbestos cord and had an adjustable reflux condenser at the top and a side tube for the vapor exit and the thermometer similar to that in the column of Clark and Rahrs.

It was found desirable to discard the gasoline distilling over below 50 degrees Centigrade in order to minimize composition changes due to evaporation losses in the lowest fraction of the synthetic mixtures prepared from it. Because of the low endpoint of the gasoline and the small volume above 124 degrees Centigrade it seemed best to use the residue in the distilling flask after the cut at 124 degrees Centigrade as the final fraction, instead of driving it over.

Two portions of the crude gasoline, 2,000 cc. and 3,000 cc., respectively, were distilled in this manner, the fractions obtained having the following specific gravities at 16.56/16.56 degrees Centigrade taken with a hydrometer:

Fraction °C.	Sample A	Sample B
50-95 (760 mm.)	0.6859	0.6849
95-124	0.7263	0.7269
Above 124	0.7778	0.7768

Removal of Aromatics by Sulfonation

The proof that the crude fractions contained small amounts of benzene, toluene and m-xylene is reported in the paper following this one. It was necessary to remove these to obtain aromatic-free fractions for the subsequent experiments with synthetic mixtures of known aromatic content. Although the nitration method is ordinarily employed for this purpose, the use of 98 per cent sulfuric acid is preferable. That this is the most suitable reagent has been pointed out by Thole and it was also adopted by Tizard and Marshall. Danaila, Andrei and Melinescu base a volumetric method for the determination of the gross aromatics content of gasoline upon the use of sulfuric acid of this concentration. They show that constant-boiling sulfuric acid, 98.33 per cent, and, in general, sulfuric acid from 97 to 100 per cent concentration absorb the aromatic hydrocarbons quantitatively at ordinary temperature. According to the experience of the investigators cited, 98 per cent sulfuric acid is beetter than concentrated nitric acid or mixed acid because it has less action on the paraffin and saturated cyclic hydrocarbons.

In a number of preliminary experiments in which the effect of the acid treatment was followed by observation of the "aniline point," it was found that rejection of the material below 50 degrees Centigrade made possible extraction by 98 per cent sulfuric acid at room temperature without appreciable composition change in the 50-95 degrees Centigrade fraction due to volatilization. These experiments also showed a slight but negligible oxidizing action by the acid on the paraffin or other nonaromatic hydrocarbons in the 50-95 degree Centigrade fraction. The somewhat greater effect on the upper fractions will be considered later.

Each of the crude fractions prepared above was sulfonated for removal of the aromatic hydrocarbon in it by shaking intermittently for one-half hour in a separatory funnel with two volumes of 98 per cent sulfuric acid. The acid layer was removed and the gasoline layer washed successively with two volumes of distilled water, one volume of 10 per cent sodium hydroxide, then three times with one volume of distilled water, and finally dried over calcium chloride.

Comparison of Aniline and Nitrobenzene Methods

It seemed worth while to make a careful comparison of the exact relationships between solubility temperature lowering and aromatic hydrocarbon content in the cases of both aniline and nitrobenzene with equal volumes and also equal weights of gasoline and other liquid.

Five synthetic mixtures containing 1 to 20 per cent benzene were made up by exact weighings from pure benzene, melting point, 4.5 degrees Centigrade (Eastman), and the aromatic-free fraction, 50-95 degrees Centigrade (Sample A.) Sealed tubes were then made up from these and also from the aromatic-free fraction itself using equal volumes (2 cc.) of gasoline and pure aniline, melting point —6 degrees Centigrade (Eastman). The tubes were prepared from ordinary 15-cm. test tubes which had been thoroughly cleaned and dried. After drawing down the tube to a diameter of approximately 5 mm. at a point about one-third the distance from the top, the aniline was added. The gasoline mixture was then introduced and the tube sealed off immediately, keeping the lower end in ice. The liquide were brought exactly to 20 degrees Centigrade (+ or — 0.1°) in glass-stoppered Erlenmeyer flasks in a thermostat before measurement and the 2-cc. pipets (B. S. certified) were brought to the same temperature by standing in a large test tube immersed in the themostat. A similar series of tubes was prepared following the same method, using pure nitrobenzene, melting point 5 degrees Centigrade (Eastman), and the same gasoline mixtures.

A series of six sealed tubes was then prepared containing equal weights of the gasoline mixtures and aniline and also a like series with nitrobenzene. The liquids were brought to 20 degrees Centigrade in the thermostat and the volumes necessary to give 2.00 grams were measured into the tubes from a 10-cc. Mohr pipet (graduated in 0.05 cc.) An apparatus setup consisting of the pipet, plain and tail stopcocks, and suction flask was found very convenient in filling the pipet by suction and running out from it volumes with an accuracy of 0.01 to 0.02 cc. As the volumes of the synthetic mixtures on hand were too small for convenient density determinations, the densities were calculated from the composition on the assumption that the law of mixtures holds accurately for these mixtures of aromatic and paraffin hydrocarbons. The error involved in this was negligible, Young having shown that benzene and normal hexane mixed in the ratio of 50 mol per cent each undergo a volume expansion of only 0.52 per cent. To determine how close to exactly equal weights the liquids actually were, each of the tubes in both series was weighed on the analytical balance, first when empty, then after addition of the aniline or nitrobenzene, and finally after addition of the gasoline and sealing. The difference between the percentage weights of the gasoline and the other liquid varied from a minimum of 0.18 to a maximum of 1.44 per cent, with an average of 0.61 per cent; that is, the average variation was only 0.30 per cent either side of 50 per cent each.

The apparatus and method used for determining the solubility temperatures accurately and conveniently in these and succeeding experiments were as follows:

The sealed tube was fastened by rubber bands to another tube of the same size fused to a long glass capillary tube having a spiral of two turns near the top which was held by a clamp. A stiff wire rod attached to the capillary below the spiral spring and connected to an eccentric run by a variable speed electric motor gave a rapid and vigorous back-and-forth motion to the tube. The tube was immersed in water in a 4-liter Pyrex beaker, which was very rapidly stirred by a four-bladed glass propeller run by the same motor. A Bureau of Standards certified thermometer graduated in tenths of degrees was immersed in the bath with its bulb in close proximity to the the sealed tube. With a low Bunsen flame as the source of heat and the addition of small amounts of ice water for cooling in the case of the tubes containing nitrobenzene, it was easily possbile to raise or lower repeatedly the temperature of the bath within the limits of 0.1 degree. For temperatures below 10 degrees Centigrade it was found most convenient to use an alcohol bath which could be readily cooled through the desired small range by the addition of small bits of solid carbon dioxide, rise in temperature being obtained merely by heat absorption from the room.

The uniform procedure adopted in the determination of the precise solubility temperature was to read alternately the temperature of disappearance of the turbidity on very slow heating and the temperature of its reappearance on very slow cooling four or five times. The mean value of the averages of the upper and lower temperatures was taken as the solubility temperature. This method when carefully carried out minimizes the slight error due to the conduction of heat through the walls of the tube and the consequent lag of the inside temperature behind that indicated by the thermometer outside. The turbidity appearance and disappearance are very sharply defined and with a little practice can be determined with a high degree of precision. On cooling, a marked opalescence gradually appears, which remains over several tenths of a degree, and this is followed by a sudden clouding due to the separation of the two phases, the latter being the true turbidity point. Estimating hundredths on the temperature readings with a magnifying lens attachment, it was found that the reading for either the upper or lower temperature rarely varied more than 0.02 degree. The difference between the averages of the upper and lower temperatures was always less than 0.1 degree. For example, in 22 tubes of the four series the average difference between these averages was 0.06 degree. The mean value of the two thus gives a measurement for the solubility temperature which one can be certain is not in error by more than 0.05 degree. In the case of temperatures below—5 degrees Centigrade for mixtures of high aromatic content with nitrobenzene, which were taken by a pentane thermometer on which only tenths could be estimated, the attainable accuracy was slightly less than this figure.

The results obtained in the tubes prepared under the four series are summarized in Table II. These data show the proportionality between solubility temperature lowering and benzene content in all four cases, but a wide variation in the value of the proportionality factor is indicated. It was decided to adopt the equal-weight nitrobenzene meth-

*Presented before the joint session of the Division of Petroleum Chemistry and Industrial and Engineering Chemistry at the 71st meeting of the American Chemical Society, Tulsa, Okla.

oil, since it shows two distinct advantages. The first of these is the larger value of the proportionality factor and consequently the greater accuracy attainable by the method. For example, if one takes 0.05 degree as the limit of accuracy of the temperature determination, a lowering of this much corresponds to 0.04 per cent benzene determinable by the equal-weight nitrobenzene method but only 0.06 per cent by the "aniline point" (equal-volume) method. The second and more important advantage is in the lower temperatures which may be employed with nitrobenzene as compared with aniline. This is of distinct importance in the 50-95 degree Centigrade fraction because it eliminates composition changes in the mixture due to volatilization losses. That these may be considerable using aniline is indicated by the fact that the critical solution temperature of normal hexane is 69 degrees Centigrade, its boiling point, and that of isohexane is 73.8 degrees Centigrade, or 12.8 degrees above its boiling point.

Table II—Comparison of Aniline and Nitrobenzene Methods

I—Aniline-Gasoline: Benzene in gasoline Per Cent	I—Aniline-Gasoline: Solubility Temp. °C. (mean)	I—Aniline-Gasoline: Lowering / % Benzene	II—Nitrobenzene-Gasoline: Solubility Temp. °C. (mean)	II—Nitrobenzene-Gasoline: Lowering / % Benzene
Equal Volumes				
0.00	64.78	.....	15.82	.....
1.00	64.14	0.640	15.03	0.795
2.01	63.05	0.861	14.00	0.905
5.12	60.43	0.850	11.16	0.910
9.96	56.43	0.838	6.53	0.933
20.15	47.18	0.873	— 3.9	0.980
.....	Av.	0.812	Av.	0.905
Equal Weights				
III—Aniline-Gasoline: 0.00	64.15	.....	IV—Nitrobenzene-Gasoline: 16.96	.....
1.00	63.12	1.030	15.78	1.180
2.01	62.43	0.856	14.66	1.444
5.12	59.21	0.965	11.08	1.148
9.96	54.16	1.003	5.27	1.174
20.15	43.64	1.018	— 6.8	1.181
.....	Av.	0.974	Av.	1.165

That the equal-weight proportions of nitrobenzene and gasoline give a solubility temperature very close to the critical solution temperature, at least for small aromatic contents, is shown by Curve 1, Figure 1, the solubility-temperature curve of nitrobenzene and a crude unfractionated natural gas gasoline. This was determined from mixtures of a charcoal gasoline, specific gravity 0.6675 (15.56°/15.56° Centigrade), and nitrobenzene prepared in sealed tubes. The necessary weight proportions were obtained with sufficient accuracy by measuring the calculated volumes with the Mohr pipet by the method described above. The solubility temperatures were determined by the apparatus and procedure previously described. The critical solution temperature shown by the curve is 17.4 degrees Centigrade at about 48 per cent gasoline by weight. Curve II, Figure 1, which was plotted from the data of Timmermans for pure hexane and nitrobenzene, also shows the critical point at 48 per cent hexane. In both cases it is evident that the 50:50 per cent mixture gives a solubility temperature approaching the critical solution temperature well within 0.1 degree. It may therefore be concluded that the lowering of the solubility temperature of the 50:50 per cent mixture due to aromatics present in the gasoline is essentially a lowering of the critical solution temperature, and the method will hereafter be referred to as the "nitrobenzene critical solution temperature method." It is of interest to note that Keyes and Hildebrand found the critical solution temperature of the hexane-aniline system at 48 per cent by weight of hexane.

Proportionality Factors Between Critical Solution Temperature Lowering and Aromatic Content

The exact relationship between lowering and aromatic content was worked out for each aromatic hydrocarbon using synthetic mixtures prepared by accurate weighings from the aromatic-free fractions, 50-95, 95-124 and above 124 degrees Centigrade and m-xylene, boiling corresponding pure aromatic hydrocarbon. The aromatic contents of these were in the neighborhood of 1, 2, 5, 10, and 20 per cent by weight. Eastman benzene, melting point 4.5 degrees Centigrade, toluene, boiling point 109.5-110.5 degrees Centigrade and m-xylene, boiling point 138-139 degrees Centigrade, were used. Duplicate sealed tubes containing equal weights of gasoline and nitrobenzene were prepared from each synthetic mixture and also from the aromatic-free fraction using the volumetric method previously described. The specific gravities of the synthetic mixtures were calculated from their compositions as before. The solubility temperatures were determined by the method previously described, the average of each closely agreeing pair of tubes being taken as the critical solution temperature.

Table III—Comparison of Proportionality Factors

Mixture	Lowering % Benzene	Lowering % Benzene	Lowering % Benzene
1	1.201	1.113	1.059
2	1.187	1.119	1.057
3	1.175	1.111	1.054
4	1.157	1.123	1.065
5	1.198	1.149	1.096
Mean	1.184	1.123	1.066
Av. pct. deviation from mean	1.2	0.9	1.1

The values of proportionality factors for each of the five points from which the curves were drawn are given in Table III. The small values of the average percentage deviation from the mean indicate the accuracy of the method with respect to the relationship concerned. The mean values were adopted for use in the test analyses described below.

Test Analyses

A number of complete analyses were made on synthetic mixtures containing accurately known amounts of aromatic hydrocarbons in order to check the method. The data and results obtained in these analyses are summarized in Table IV. The known mixtures were made up by exact weighings from the previously prepared aromatic-free fractions and the corresponding pure aromatic hydrocarbons. A volume of each varying from 20 to 35 cc. was sulfonated for the removal of the aromatic in it by the method previously described. The time of shaking for the benzene mixtures was from 10 minutes continuous to 20 minutes intermittent shaking. The mixtures containing toluene had 5 to 10 minutes and those containing xylene 10 minutes continuous shaking each. Sealed tubes containing equal weights of the gasoline and nitrobenzene were prepared in duplicate before and after the sulfonations for the determination of the rise in critical solution temperature due to the removal of the aromatic hydrocarbon. The temperature determinations were carried out in the manner previously described. The rise in critical solution temperature multiplied by the reciprocals of the factors found temperature multiplied by the reciprocals of the factors found above then gave the per cent aromatic hydrocarbon.

In the case of the upper two fractions it was found that the effect of 98 per cent sulfuric acid on nonaromatic hydrocarbons cannot be neglected as in an approximate method, and it was necessary to work out correction factors for this. The critical solution temperatures of the sulfonated synthetic toluene mixtures were consistently higher than those of the original completely aromatic-free fractions, indicating a removal of other hydrocarbons. According to Sentke, normal octane is an exception to the general rule that concentrated sulfuric acid does not attack paraffin hydrocarbons at ordinary temperature. The slight action observed may therefore be due to this hydrocarbon. The correction factor was determined by a blank sulfonation on a portion of the original aromatic-free fraction using 10 minutes continuous shaking and the other conditions exactly as in the test analyses. The critical solution temperature was determined before and after the treatment. Duplicate sulfonations in this way gave a rise in critical solution temperature of 0.58 and 0.62 degree, average 0.60 degree. This was then applied as a negative correction to the observed rise obtained in the toluene test analyses. A correction factor for this effect in the xylene range was worked out by a similar blank sulfonation with the same conditions as in the xylene test analyses and the rise of critical solution temperature found to be 0.52 degree.

Table IV—Test Analyses

Mixture	Aromatic hydrocarbon known % Wt.	Critical Solution Temperature Initial	Critical Solution Temperature Final	Rise (Obsd.) Degrees	Rise (cor.) Degrees	Aromatic hydrocarbon found % Wt. (Rise ×0.845)	Difference Per Cent
	Benzene						
1	0.89	15.57	16.61	1.04	.....	0.88	—0.01
2	6.04	9.22	16.27	7.05	.....	5.96	—0.08
3	9.46	5.21	16.20	10.99	.....	9.29	—0.17
4	15.09	— 1.47	16.08	17.55	.....	14.82	—0.27
	Toluene				(—0.60)	(Rise ×0.890)	
1	1.03	12.21	13.76	1.55	0.95	0.84	—0.19
2	1.13	11.94	13.87	1.93	1.33	1.18	+0.05
3	1.06	11.77	13.41	1.64	1.04	0.92	—0.14
4	9.61	2.38	13.77	11.39	10.79	9.60	—0.01
5	9.55	2.19	13.52	11.33	10.73	9.55	0.00
6	9.54	2.21	13.19	10.98	10.38	9.24	—0.30
	Xylene				(—0.52)	(Rise ×0.938)	
1	1.16	18.64	20.05	1.41	0.89	0.83	—0.33
2	4.87	14.69	20.04	5.35	4.83	4.53	—0.34
3	10.41	8.72	20.07	11.35	10.83	10.16	—0.25
4	14.88	3.79	20.13	16.34	15.82	14.84	—0.04
						Av.	0.15

The fraction taken for the xylene synthetic mixtures, Nos. 1 and 3, was yellow as a result of having stood in the sunlight for about 17 months. It was necessary to remove the unsaturated compounds causing this color, which was done by refluxing with an aqueous solution of mercuric acetate and alcohol, as in the method of Danaila. After steam-distilling the unattacked gasoline, which was perfectly colorless, the gasoline layer washed successively with sodium hydroxide, sodium bisulfite, and distilled water until neutral, and dried by calcium chloride. This treatment gave a rise in critical solution temperature of 0.45 degree due to the removal of the unsaturated hydrocarbons. The resulting product was then used to prepare the synthetic xylene mixtures.

Accuracy of Method

The following factors may be considered as the important ones affecting the accuracy of the method: (1) accuracy of the temperature determination, (2) reproducibility of the mixtures of critical proportions, (3) completeness of separation of the aromatics in the crude fractions, and (4) the sulfonation reaction

The first has been discussed under the comparison of methods. All the temperature measurements in the succeeding series of experiments have borne out the estimate given there. For example, the average difference in turbidity temperatures for 49 tubes used in the synthetic experiments was 0.06 degree, with a minimum of 0.04 and a maximum of 0.12 degree. That the 50:50 per cent mixture can be prepared very accurately by observing the temperature control and other necessary precautions was shown previously in the case of the weighed tube mixtures. The temperature checks on duplicate tubes serve as indications of the reproducibility of such mixtures. For example, in 27 pairs of tubes in the synthetic experiments the duplicates were within an average of 0.06 degree of each other, varying from 0.00 to 0.12 degree.

Considering factors (1) and (2) together, the method is seen to be capable of giving results with an accuracy within 0.05 to 0.10 per cent (by difference), other factors being constant.

As to the segregation of the aromatics in the crude fractions, even though a slight overlapping might occur, as claimed by Thole, the cutting points at 95 and 124 degrees Centigrade should minimize this error and the percentage by weight of aromatic in each fraction would not be affected appreciably because of the closeness in the values of the proportionality factors. To get information on these points it is hoped to carry out further tests of the method of using synthetic mixtures containing all three aromatics, fractionating these, and determining the aromatic content of each fraction.

The sulfonation reaction in the case of the upper two fractions probably introduces the largest single error in the method. The values of the correction factors applied for this error seem fairly satisfactory but may not apply to other types of gasoline. This general point is receiving further investigation.

It should be pointed out that, as in the methods of Tizard and Marshall, and Chavanne and Simon, this method is applicable only in the absence of unsaturated hydrocarbons. These lower the critical solution temperature almost as much as do aromatics, a few synthetic experiments with amylene showing a lowering of 0.8 degree for 1 per cent olefin. The results on the xylene mixtures indicate, however, that these may be removed completely by mercuric acetate.

Summary

The essential steps and conditions in the method as it would be employed in determining the aromatic contents of an unknown gasoline may be summarized as follows:

The sample (300 to 500 cc.) is fractionated using the most effective column possible into three fractions, 50-95, 95-124 and 124-150 degrees Centigrade (760 mm.) or the residue above 124 degrees Centigrade. After removal of any olefins by a treatment with mercuric acetate, a 25 to 50-cc. portion of each fraction is sulfonated with two volumes of 98 per cent sulfuric acid shaking steadily for 10 minutes except in the case of the 50-95 degrees Centigrade fraction, where 20 to 30 minutes are necessary for high benzene contents. The acid layer is removed and the gasoline layer washed first with distilled water, then with sodium hydroxide solution, and finally with water until neutral, after which it is thoroughly dried over calcium chloride. Tubes, preferably sealed, are made up from the gasoline both before and after the sulfonation containing equal weights (2.00 grams if test tubes are used) of gasoline and pure, dry nitrobenzene, the equal weights being obtained with sufficient accuracy by measurement of the required volumes from a pipet graduated to 0.05 cc. with suitable temperature control.

The critical solution temperatures of these are determined using any apparatus that will give vigorous shaking and a controlled slow rise and fall in temperature. The rise in critical solution temperature after deducting 0.60 and 0.52 degree in the toluene and xylene fractions, respectively, multiplied by the factor, 0.845 for benzene, 0.890 for toluene and 0.938 for xylene, gives the percentage by weight of the aromatic hydrocarbon in the corresponding fraction. The amount of each in the total crude sample may then be calculated from the ratio of the weight of each crude fraction to the total initial weight of the sample.

The advantages which can be claimed for the method are, first, the lower temperatures which are used as compared with the methods based on solubility temperature measurements in aniline; and second, the precision possible in determining the individual aromatic hydrocarbons, the test analyses indicating an accuracy represented by a percentage difference of = 0.2 per cent.

REFINING AND MARKETING

ALAMO REFINING COMPANY TO BUILD REFINERY IN HUTCHINSON COUNTY

Headed by former officials of the Waite Phillips Co., the Alamo Refining Co. has been organized under the laws of Texas to build and operate a refinery in the Panhandle Field. The site for the plant and practically all the material has been purchased. Construction work will start immediately. The plant will be the first to be built in the Panhandle Field since it became one of the main producing areas.

R. B. Pringle, former vice president of the Waite Phillips Co. previous to its purchase by the Barnsdall interests early in the year, is president of the company. M. P. Youker, former general superintendent of refineries of the Waite Phillips Co. and later chief engineer with the Barnsdall Refineries, Inc., is vice president of the new concern. Mr. Youker, previous to his association with the Waite Phillips Co., was connected with the Bureau of Mines and is well known in the Mid-Continent Field. He resigned from the Barnsdall company July 1 to make plans for the building of the new refinery.

O. L. Cordell, also a former vice president of the Waite Phillips Co., in charge of the refining and marketing departments is secretary and treasurer of the company. Mr. Cordell left the company

O. L. Cordell

at the time of its sale to the Barnsdall company. O. W. Crick, formerly connected with the Highway Oil & Refining Co. of Tulsa, has been made assistant secretary and treasurer.

The plant will be located at the end of the railroad extension which the Santa Fe is building from Panhandle, Tex., to the Hutchinson County Field. The line will be completed this month. The site is about 4 miles north of the present town of Borger.

An unusual feature of the plant will be that pipe stills will be used without any shell stills. It is known that the officials of the company have been investigating the problem of refining Panhandle crude for several months. The plant has been designed with the view of eliminating the difficulties which have been experienced in handling the crude at other refineries. Bubble towers will be used in fractionating equipment. Provided materials are delivered as needed it is expected that the plant will be in operation by November 1.

M. P. Youker has been confined in a Tulsa hospital due to an operation for

M. P. Youker

appendicitis. He was rapidly recovering the first of this week and will be able to take charge of construction work in the near future.

SINCLAIR PURCHASES COLLINS OIL COMPANY

The sale of the properties of the Collins Oil Co., of Knoxville, Iowa, one of the largest and oldest independent oil jobbing concerns in the United States, to the Sinclair Refining Co. was announced during the past week by representatives of the Collins company. The transaction involves approximately 250 bulk and service stations located in Iowa, Missouri, Nebraska and Illinois. The consideration is said to be in excess of $2,000,000.

The Collins Oil Co. was organized about 1890 at Knoxville, Iowa. At that time there was very little demand for gasoline and the company's principal business was the jobbing of kerosene. Later when the automobile brought a demand for gasoline, the company established bulk and service stations. For several years the company has been one of the largest distributors in the Middle West.

The company was established by the father of the late Lafe S. Collins, president and general manager for several years and a well known figure among the independent jobbing fraternity. Mr. Collins died suddenly three months ago.

The Sinclair Refining Co. already had a large number of stations in the states in which the Collins properties are located. The latter properties will become a part of the marketing division of the Sinclair company.

OIL MARKETERS ORGANIZE

CHICAGO, Aug. 14.—At a meeting of the marketers of this city, held here this week, a partial organization was formed and it is expected that at the next meeting, which will be held in two weeks, there will be further steps taken to complete an organization of car lot marketers of petroleum products. The marketers have been holding their meetings each two weeks. The only subject which has been discussed is credits.

At the meeting this week James A. Gilmore, secretary of the American Oil Men's Association, was present and in the discussion offered the organization the facilities of its office for the work. It was immediately proposed that Mr. Gilmore be made secretary of the new organization and this was done, he being the only officer so far named. An interchange of credit information has been established under the management of A. C. Frye, who has been conducting a private credit bureau for some time in this city, and his work has pleased the members. It is hoped through the efforts of the organization to secured more cooperation from refiners and improve the relations between the refiner and the marketer as well as the latter and the jobbers. The club will meet each other Tuesday noon at the Auditorium Hotel.

MICHIGAN JOBBERS TO MEET

The Michigan Independent Oil Men's Association will hold its annual meeting February 10 and 11, 1927, at the Hotel Statler, Detroit, according to an announcement by James A. Gilmore, secretary of the association. The election of officers will take place at that time. An exhibit of equipment of interest to the jobbing fraternity will be one of the features of the meeting.

WISCONSIN JOBBERS MEET

CHICAGO, Aug. 14.—The Wisconsin Independent Oil Men's Association will hold its next meeting on August 20 and 21 at Waupaca, Wis. The chief topic will be the problem of antiknock gasoline. Among the speakers listed are Dr. G. G. Brown, of the University of Michigan, and A. V. Bourque, secretary of the Association of Natural Gasoline Manufacturers. Both Messrs. Brown and Bourque will discuss natural gasolines from the standpoint of their value as motor fuels.

ITALO-AMERICAN CO. CALIFORNIA MERGER

The Italo-American Petroleum Corp., the California Refining Co., Gorham-Durbrow Oil Co. and the Hunter Dehydrating Co.—all California concerns—have been merged under the name of the Italo-American Oil Co. The new company will be engaged in the producing, refining and marketing branches of the industry.

The Gorham-Durbrow Oil Co. has been in the export business in packing gasoline and kerosene. The company in the past has done considerable business in China and South American countries. The new organization expects to expand its export facilities.

The California Refining Co. owns a small skimming plant at Long Beach which has been shut down for some time. The new organization will operate the refinery, which will be enlarged to include cracking equipment. The production division has wells and undeveloped leases in the Athens and Long Beach Fields.

Officers of the company are John M. Perata, president; E. P. Zanetti, general manager; F. P. Tommasini, secretary-treasurer, and Jacob P. Harper, in charge of operations.

MID-CONTINENT REFINERS DISCUSS PLANS FOR EXPORT MARKET OUTLET

Representatives of several refining organizations in the Mid-Continent Field on August 13 attended a meeting at Kansas City, Mo., for the purpose of discussing the formation of a co-operative export concern to handle foreign sales of gasoline and other refined products. The meeting was the first definite step taken in a plan which has been discussed in the Mid-Continent Field for several months.

It was understood that no definite action was taken at the meeting. Those responsible for the meeting explained the proposition which is still tentative and a general discussion followed. It is known that the refiners have been offered terminal facilities in the Gulf Coast from several concerns, although only one proposition was considered at the Kansas City meeting.

The plan as outlined at the meeting provides for the organization of a separate concern financed by subscriptions from individaul refining organizations. The refiners will also be asked to agree to furnish the export organization certain specified amounts of gasoline which will be sold to foreign buyers. The purpose of the organization, according to those interested, is to provide the best possible export market outlet for all refined products in excess of domestic requirements.

A somewhat similar organization—known as the Export Oil Co.—was formed during the World War and continued in business after the war until 1921 when the terminal and other properties were sold to the Standard Oil Co. of Louisiana. The Pure Oil Co., the Indiahoma Refining Co. and the Constantin Refining Co. were the principal owners of the company.

Part of the agitation at the present time for a co-operative export organization is said to be due to dissatisfaction in regard to the present export market on gasolines. The Standard Oil Co. of New Jersey is the largest purchaser on contracts of the 64-66 375 grade.

The price paid is based on the Standard's posted price at its Louisiana terminal. This grade at the present time is netting the Oklahoma refiner 11.05 cents and the north Texas refiner 11.15 cents, the difference being due to the lower freight rate from north Texas. These contracts are from ½ to ¾ cent under the present spot price in Oklahoma and north Texas. Usually the contract and open market prices are very close together with instances in which the contract price was higher than the spot price.

Representatives of several companies which had been invited to attend the Kansas City meeting were unable to be present. For that reason it was decided to postpone any definite action until another meeting was held. The next meeting probably will be held in Tulsa the first week in September.

Among those attending the Kansas City meeting were: George D. Locke, Chicago, vice president of the Barnsdall Refineries, Inc.; D. E. Buchanan, Tulsa, vice president of the Chestnut & Smith Corp.; C. C. Peppers, Enid, Okla., vice president of the Champion Oil Co.; R. L. Fowler, St. Louis, vice president of the Pierce Petroleum Corp.; Edgar Marston and F. Bospath, each a vice president of the Texas Pacific Coal & Oil Co. of Fort Worth; E. E. Schock, Okmulgee, former president of the Oil Export Corp.; H. A. Trower, Chicago, sales manager the Phillips Petroleum Corp.; E. W. Goebel, president of the Manhattan Oil Co. of Kansas City.

JENKINS CRACKING PROCESS

PRODUCES QUALITY GASOLINE

Facts from performance

EXPECTATIONS

Naturally, every user of the Jenkins Process expected certain results when he purchased the equipment.

These expectations have been more than fulfilled in every respect —

Quantity of gasoline produced
Longer operating cycle
Low fuel consumption
High liquid recovery
Quality of gasoline
Ease of operation
High conversion
Throughput
Low loss.

■

GRAVER Corporation Founded 1857

EAST CHICAGO, INDIANA

NEW YORK Grand Cent. Term. | CHICAGO Steger Building | TULSA Atlas Life Bldg. | HOUSTON West Building

Brief Items for Plant Operators

NEW GASOLINE PLANTS IN NORTH TEXAS AREA

FORT WORTH, Tex., Aug. 14.—The Cook Ranch Pool, in Shackelford County, Texas, has not only been an excellent field from the standpoint of oil production but bids fair to make a name for itself in the output of natural gasoline if the present gas supply holds up to expectations and the quality is maintained at the present high standard.

Roeser & Pendleton, Inc., have doubled the size of their plant which was originally intended to have but three units. The field has covered more territory than the owners anticipated and the quantity of gas has exceeded expectations. There is about 8,000,000 feet of gas available now from the combined Roeser & Pendleton, Marland Oil Co. and Humble Oil & Refining Co. leases, and the plant now nearing completion will be able to handle about 6,000,000 feet daily. This gas tests about 3 gallons per thousand feet, and since the yield is usually a little better in commercial practice than the test shows, Roeser & Pendleton expect to be making at least 18,000 gallons of gasoline daily in the near future.

The machinery is all in place now and the owners expect to start operations about August 22. Clark engines and Newton extraction equipment are being used.

The Humble Oil & Refining Co. has also decided to double the size of its plant now under construction in the Woodson Pool of Throckmorton County, due to the discovery of excellent gas production along with gusher oil flow in its No. 1 Stubblefield, a couple of weeks ago. This well is making about 5,000,000 feet of gas testing about 2 gallons per thousand. More than a dozen other tests in this pool are expected to bring the gas production up to a figure which will easily supply the new plant which, under the revised plans, will be able to handle 12,500,000 feet of gas daily.

START TWO ADDITIONAL DUBBS UNITS AT P. & R.

The Producers & Refiners Corp. this week started operating two additional Dubbs units at its West Tulsa, Okla., refinery. These units are of the latest Dubbs design. The high dephlegmating tower has been eliminated. The tower installations are similar to those recently installed at the Ponca City, Okla., refinery of the Marland Refining Co.

The two new units will be operated in conjunction with four units which have been in operation at the West Tulsa refinery for some time. One feature of the installation is a change in pumping equipment so that all six units are charged with one pump.

With the additional units the refinery will now be able to crack its entire fuel oil output. The plant is handling from 4,500 to 5,000 bbls. of crude daily.

PROMOTE DUNHAM

George D. Dunham, assistant superintendent of the White Eagle Oil & Refining Co.'s plant at Augusta, Kan., has been appointed superintendent of the company's Fort Worth, Tex., refinery to take the place of Henry G. Nevitt, resigned. Before going to the Augusta plant, Mr. Dunham helped build the White Eagle's refinery at Casper, Wyo., and also worked at Parco, with the Producers & Refiners Corp. He is a graduate of Cornell University.

ANNOUNCE PROGRAM FOR PETROLEUM DIVISION OF CHEMICAL SOCIETY

The program of the Petroleum Division of the American Chemical Society which will hold its annual meeting at Philadelphia, September 6 to 11, has practically been completed, according to announcement by G. A. Burrell, secretary. The papers to be presented at the sessions of the Petroleum Division cover a wide variety of subjects and are presented by men widely known in the refining industry.

Following is the program as announced by Mr. Burrell:

"The Prediction of the Flash Point of Blends of Lubricating Oils," by Ernest W. Thiele.

"A Laboratory Method of Determining the Starting Properties of Motor Fuels," by Wheeler G. Lovell, and John D. Coleman with T. A. Boyd.

"Studies of Combustion in Gasoline Engines: (1) The Determination of the Rate of Burning by Chemical Analysis. (2) The Burning of Mixtures of Hydrogen and Carbon Monoxide," by Wheeler G. Lovell and John D. Coleman with T. A. Boyd.

"The Evaluation of Turbine Oils," by T. H. Rogers and C. E. Miller.

"An Investigation of the Changes in Some of the Physical and Chemical Properties of Four Unblended Mineral Oils Produced by Prolonged Treatment With Ozone," by Dover O. Cromwell, Johns Hopkins University.

"Some Reactions of Lead Tetraethyl," by Owens Hand Browne and E. Emmet Reid.

"Lubricating Greases," by James McKee.

"A Direct Refractometer Method for the Determination of Oil in Paraffin Wax," by S. H. Diggs and C. C. Buchler.

"Deterioration of Mineral Oils; Mechanism of Oxidation and Action of Negative Catalysts," by R. T. Haslam and P. K. Frolich.

"Mechanism of Static Oxidation," by Brian Mead, A. C. Phelps, C. R. Washburn and J. P. Warner.

"Prevention of the Use of Antioxidants," by Brian Mead and W. L. McCabe.

"Mechanism of Static Deterioration of Transformer Oils," by Brian Mead, E. F. Dirks and W. B. Bader.

"Influence of Lead Tetraethyl," by Brian Mead and John C. Pope.

"Cryoscopic Method of Determining the Benzene Content of a Motor Fuel," by L. M. Henderson.

"The Determination of Wax in Intermediates," by L. M. Henderson and S. W. Ferris.

"Measurement of the Bloom of Lubricating Oils," by L. M. Henderson and H. C. Cowles, Jr.

"The Composition of Gasoline as Indicated by Close Fractionation," by J. B. Hill, L. M. Henderson and S. W. Ferris.

"The Probable Cause of Detonation in Internal Combustion Engine," by George Granger Brown and G. B. Watkins, University of Michigan.

"Measurement of Knock Characteristics of Gasoline in Terms of a Standard Fuel," by Graham Edgar, Research Laboratories of the Ethyl Gasoline Corp.

"Saturation of the Petroleum Hydrocarbons as Shown by Their Reaction With Bromide," by Charles F. Mabery.

"Gravity of Paraffin Wax," by F. J.

"The Effect of Treating on the Anti-Knock Properties of California Cracked Gasoline," by Gustav Egloff and Jacque C. Morrell, Universal Oil Products Co., Chicago.

"The Effect of End Point on the Anti-Knock Properties of Gasoline," by Gustav Egloff and Jacque C. Morrell, Universal Oil Products Co., Chicago.

AMONG THE TECHNICAL MEN

The superintendent of the Fort Worth, Tex., plant of the Texas Pacific Coal & Oil Co., one of the most complete, efficient and up-to-date plants in the United States, with a newly erected contact filter plant costing $350,000, is just 31 years of age, or will be next month. He is Albert H. Mayo and he was born in Olean, N. Y., August 30, 1895.

Albert H. Mayo

While he is a young man in years, however, he was practically "born and raised" in a refinery. His father is W. G. Mayo, now general superintendent of the Waverly Oil Works Co. plant at Pittsburgh, Pa., and the subject of this sketch spent practically all of his vacations from school as well as Saturdays and Sundays working around the plant.

During the past 10 years Mr. Mayo's refinery experience has carried him over a large part of the United States. He started working for the Sunflower Refining Co. of Niotaze, Kans., then went with The Texas Company at Charleston, S. C. He came back to the Mid-Continent and was connected with the Cosden & Co. (now Mid-Continent Petroleum Corp.) plant at Tulsa and also worked for the Mid-Co Gasoline Co. in the same city. The Gulf Refining Co. refinery at Port Arthur was the next plant with which he was connected and he then accepted a position as superintendent of one of the divisions of the Globe Oil & Refining Co. at Blackwell, Okla.

In March of 1922, Mr. Mayo went back to Pennsylvania to become superintendent of the Waverly Oil Works Co. plant, a position which he held until February of this year when he went to Fort Worth as superintendent for the Texas Pacific Coal & Oil Co.

The new contact filter plant, installed under the direction of Dr. E. R. Lederer, vice president in charge of refining operations for the Texas Pacific Coal & Oil Co., and Mr. Mayo, is working to their entire satisfaction and is now running at about 50 per cent overload. A new idea worked out at this plant is the burning of all sludge acid under the stills and boilers. The company is also planning on the installation of some cracking units but has not yet definitely decided on the make.

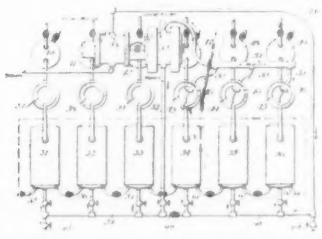
Mr. Mayo is married and is a member of the Fort Worth Technical Club, organized by Doctor Lederer.

Recent Patents

1,594,083. Removal of Sulphur and Sulphur Compounds From Hydrocarbon Oil Distillates. Gerald L. Wendt, Chicago, Ill., assignor to Standard Oil Co., Whiting, Ind., and Chicago Ill., a corporation of Indiana. Filed July 16, 1924. Serial No. 726,378. 1 Claim. (Cl. 196—33.)

The method of refining distillate oils containing products within the gasoline and kerosene boiling point range of the class hereinbefore described comprising treating such oils with doctor solution, and subsequently distilling the treated oil by bringing the oil under atmospheric pressure to a maximum temperature not exceeding 400 degrees Fahrenheit, and continuing the heating of said oil with reduction of pressure and without exceeding said maximum temperature thereby causing its distillation to proceed.

1,594,957. Steam Distillation. Frank A. Howard, Westfield, N. J., and Edgar M. Clark, New York, N. Y., assignors to Standard Development Co., a corporation of Delaware. Filed March 8, 1920. Serial No. 364,101. 4 Claims. (Cl. 196—73.)



1. The process of distilling liquid hydrocarbons or like substances immiscible with water which consists in passing the same progressively through a plurality of stills in which successively heavier fractions are removed in successive stills, introducing steam into the stills in which the heavier fractions are removed, removing and cooling the vapors evolved in such stills, withdrawing therefrom vapors containing at least 50 per cent of steam, compressing said vapors and introducing the compressed vapors into stills in which lighter fractions are removed, and removing and condensing the vapors from said last mentioned stills.

(Additional Patents on Page 164)

FISHER

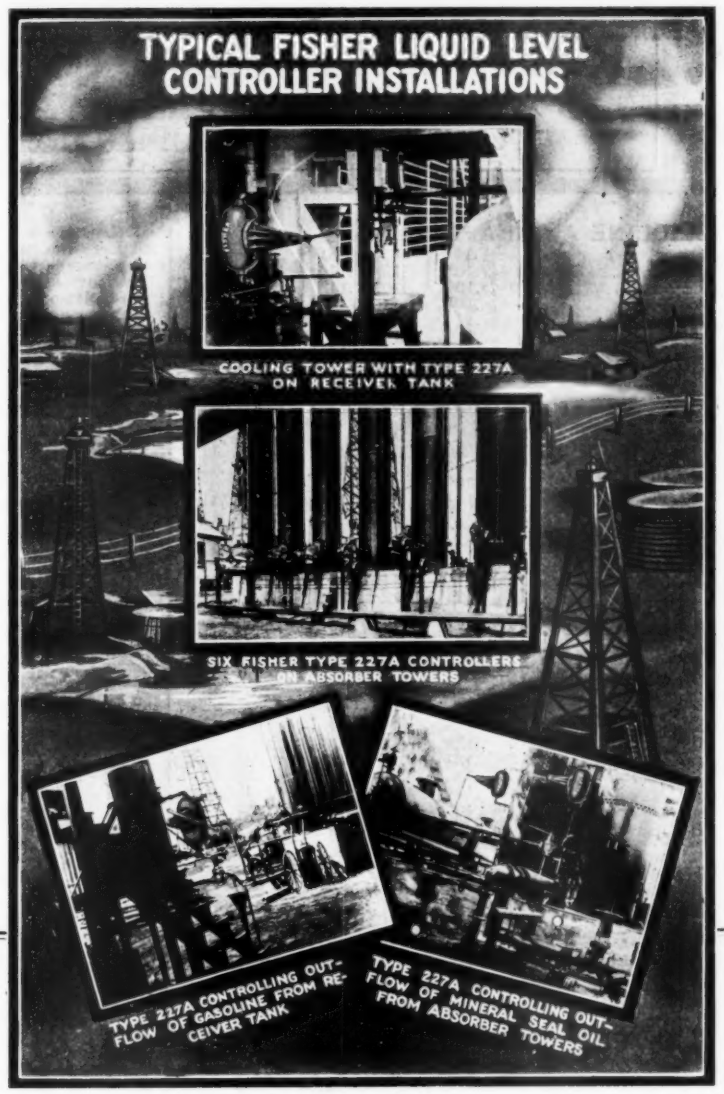
TRADE MARK
REGISTERED

LIQUID LEVEL CONTROL
TYPE 227A

Used on tanks where it would be impossible to apply an internal float valve—

Where surging of the liquid prevents the use of an inside float valve—
Will control the level of liquid in a piping system when installed on a vertical pipe—

Used as a continuous drainer in handling large volumes of condensate from evaporating pans, open or closed heaters, condensers, etc.


TYPICAL FISHER LIQUID LEVEL CONTROLLER INSTALLATIONS
COOLING TOWER WITH TYPE 227A ON RECEIVER TANK
SIX FISHER TYPE 227A CONTROLLERS ON ABSORBER TOWERS
TYPE 227A CONTROLLING OUTFLOW OF GASOLINE FROM RECEIVER TANK
TYPE 227A CONTROLLING OUTFLOW OF MINERAL SEAL OIL FROM ABSORBER TOWERS

King Canute was defiant--

But defiance did not stop the rising tide. The control of liquids is a job for engineers who understand their laws and whims. The laws relating to hydrostatics as announced by Pascal are fundamental, and these fundamentals are made to serve the oil industry through devices designed and manufactured by The Fisher Governor Company.

The Fisher Liquid Level or regulator, Type 227A, is designed for holding a predetermined level of liquid in such apparatus as stills, absorber towers, receivers, pipe lines, heaters, condensers, closed tanks, etc., where an external float is preferred. Typical installations of this kind are, drawing of mineral seal oil from absorber towers and stills, removing condensate from receiver tanks and the draining of hot condensate from closed feed water heaters.

THE FISHER GOVERNOR COMPANY

383 FISHER BLDG.
MARSHALLTOWN, IOWA

XUM

REFINERY AND CRUDE PRICES

Quotations on Principal Refined Products and Crude Petroleum Markets in All the American Oil Fields

GASOLINE AND NAPHTHA

	Aug. 17		Aug. 10		Aug. 3	
OKLAHOMA (Group 3)—						
50-52 450 end point	.10½	.10¾	.10¾	.11	.11	
56-58 450 end point	.10½	.10¾	.10¾	.11	.11	.11½
58-60 450 end point	.10¾	.10⅞	.11		.11⅛	.11¼
58-60 437 end point (U. S. Motor)	.10⅞	.11	.11¼	.11½	.11⅜	.11½
60-62 400 end point	.11¾	.11½	.11¾		.11¼	.11⅞
64-66 375 end point	.11⅝	.11¾	.12	.12¼	.12⅛	.12¼
68-70 360 end point	.12	.12¼	.12¼	.12½	.12⅝	.12½
KANSAS—						
58 60 437 end point (U. S. Motor)	.11¼	.11½	.11½	.11¾	.11¾	.11⅞
NORTH TEXAS—						
48-50 450 end point (Naphtha)	.10½		.10¾		.10¾	.11
50-52 450 end point (Naphtha)	.10½	.10⅝	.10¾	.11	.10¾	.11
56-58 450 end point	.10½	.10⅝	.10¾	.11	.11	.11¼
58-60 437 end point (U. S. Motor)	.10¾	.10¾	.11	.11¼	.11¼	
60-62 400 end point	.11¼	.11½	.11½	.11¾	.11⅝	.11¾
64-66 390 end point	.11½	.11⅝	.11⅝	.11¾	.11¾	.11⅞
64-66 375 end point	.11½	.11¾	.11¾	.12	.12	
68-70 360 end point	.11⅞	.12	.12¼	.12½	.12⅜	.12½
NORTH LOUISIANA—						
58 60 437 end point (U. S. Motor)	.11¼	.11½	.11½		.11½	.11¾
64 66 375 end point	.11¾	.12	.12	.12¼	.12¼	.12½
ARKANSAS—						
58-60 437 end point (U. S. Motor)	.11	.11¼	.11½		.11⅝	.11¾
64-66 375 end point	.11½	.11¾	.12		.12¼	.12½
ROCKY MOUNTAIN STATES—						
*58-60 437 end point (U. S. Motor)	.14	.14¼	.14¼	.14½	.14½	.14⅝
PENNSYLVANIA—						
52 Naphtha	.12½	.12¾	.12½	.12¾	.12½	.12¾
54 Naphtha	.12¾	.13	.12¾	.13	.12¾	.13
56 Gasoline	.13	.13⅛	.13	.13¼	.13	.13¼
58 Gasoline	.13⅛	.13¼	.13¼	.13½	1.31¼	.13½
60 Gasoline	.13½	.14	.13⅜	.14	.13¾	.14
62 Gasoline	.14¼	.14¾	.14½	.14¾	.14½	.13¾
64 Gasoline	.14¾	.15	.14¾	.15	.14¾	.15
66 Gasoline	.15¾	.16	.15¾	.16	.15¾	.16
68-70 Gasoline	.17¾	.18	.17¾	.18	.18¼	.18½
CALIFORNIA—						
54-58 437 end point (U. S. Motor) domestic	.12	.12½	.12	.12½	.12	.12½
CHICAGO DISTRICT (Based on Group 3)—						
50-52 450 end point (Naphtha)	.10¾	.11	.11		.11	
56-58 450 end point	.10¾	.11	.11		.11	.11¼
58-60 437 end point (U. S. Motor)	.11	.11¼	.11¼	.11½	.11½	.11¾
6062 400 end point	.11¾	.12	.11¾	.12	.11¾	.12⅛
64 66 375 end point	.12	.12¼	.12⅛	.12½	.12¼	
68-70 360 end point	.12¼	.12½	.12½	.12¾	.12½	.12¾

*Colorado points.

NATURAL GASOLINE

	Aug. 17		Aug. 10		Aug. 3	
OKLAHOMA (Group 3)—						
Grade AA, 80-87.9, 375 e.p., rec. 90%	.09⅛	.09¼	.08¾		.08½	
Grade A, 72-79.9, 375 e.p., rec. 90%	.09¼		.08¾	.08⅞	.08½	.08⅝
Grade BB, 84-92, 375 e.p., rec. 85%	.08⅞	.09	.08¾	.08½	.08¼	.08½
Grade B, 76-83.9, 375 e.p., rec. 85%	.09		.08⅝	.08½	.08¼	.08½
Grade C, 80 90, 375 e.p., rec. 78%	.08¾		.08⅛	.08¼	.08	.08¼
NORTH TEXAS—						
Grade AA, 80-87.9, 375 e.p., rec. 90%	.09¼		.08¾		.08½	
Grade A, 72-79.9, 375 e.p., rec. 90%	.09¼		.08¾		.08½	.08⅝
Grade BB, 84 92, 375 e.p., rec. 85%	.09		.08⅝	.08½	.08¼	
Grade B, 76-83.9, 375 e.p., rec. 85%	.09	.09⅛	.08⅝	.08½	.08¼	
Grade C, 80-90, 375 e.p., rec. 78%	.08¾	.09	.08⅛	.08¼	.08	.08¼
NORTH LOUISIANA—						
Grade A, 72-79.9, 375 e.p., rec. 90%	.09⅛	.09⅜	.09	.09⅛	.08⅞	.09⅛
Grade B, 76-83.9, 375 e.p., rec. 85%	.09⅛	.09⅜	.08⅞	.09	.08½	.08⅞
Grade C, 80-90, 375 e.p., rec. 78%	.09	.09¼	.08¾	.09	.08½	.08¾
CALIFORNIA—						
75-85, 375-390 end point	.15½	.16	.15½	.16	.15½	.16
CHICAGO DISTRICT (Based on Group 3)—						
Grade AA, 80-87.9, 375 e.p., rec. 90%	.09		.08⅝	.08¾	.08½	.08⅝
Grade A, 72-79.9, 375 e.p., rec. 90%	.09		.08⅝	.08¾	.08½	.08⅝
Grade BB, 84-92, 375 e.p., rec. 85%	.08¾	.09	.08¼	.08½	.08¼	.08¾
Grade B, 76 83.9, 375 e.p., rec. 85%	.08¾	.09	.08¼	.08½	.08¼	.08¾
Grade C, 80 90, 375 e.p., rec. 78%	.08½	.09	.08⅛	.08¼	.08	.08⅛

MOTOR NATURAL GASOLINE (BLENDS)

	Aug. 17		Aug. 10		Aug. 3	
OKLAHOMA (Group 3)—						
60-62 450 end point	.10¼	.10⅜	.10½	.10¾	.10½	.10¾
64-66 437 end point	.10¼	.10½	.10⅝		.10⅝	
NORTH TEXAS—						
64-66 437 end point	.10¼	.10⅜	.10⅝	.10¾	.10⅝	.10¾
PENNSYLVANIA—						
*60-62	.13	.13¼	.13½	.13¾	.13½	.13¾
*64-66	.13¼	.13½	.13¾	.14	.13¾	.14
*66-68	.13½	.13⅞	.13¾	.14	.13¾	.14
*68-70	.13½	.13¾	.14	.14¼	.14	.14¼
CHICAGO DISTRICT (Based on Group 3)—						
60-62 450 end point	.10½		.11		.10¾	.11
64-66 437 end point	.10½	.10¾	.11	.11¼	.11	.11¼

*At Sistersville, W. Va.

BURNING OIL

	Aug. 17		Aug. 10		Aug. 3	
KANSAS—						
41-43 water white Kerosene	.09	.09⅛	.08¼	.08½	.08½	.08⅝
OKLAHOMA (Group 3)—						
41-43 water white Kerosene	.08¼	.08⅞	.07¾	.08	.08	
42-44 water white Kerosene	.09¼		.08¼	.08½	.08½	.08⅝
NORTH LOUISIANA—						
41-43 prime white Kerosene	.08½	.08¾	.08	.08¼	.08¼	.08½
ROCKY MOUNTAIN STATES—						
*40-41 water white Kerosene	.11½	.11¾	.11¼	.11½	.11¼	.11½
NORTH TEXAS—						
41-43 water white Kerosene	.08⅜	.08⅝	.07½	.07¾	.07¾	.08
ARKANSAS—						
41-43 water white Kerosene	.08¼	.08½	.08	.08¼	.08¼	.08½
PENNSYLVANIA—						
43 Kerosene prime white	.09½	.09¾	.09½	.09¾	.09¼	.09½
45 Kerosene water white	.09¾	.10	.09¾	.10	.09½	.09¾
46 Kerosene water white	.10½	.10¾	.10	.10¼	.09¾	.10
47 Kerosene water white	.11	.11¼	.11	.11¼	.10¾	.11
34 Neutral	.07½	.07¾	.07½	.07¾	.07½	.07¾
34 Sundebloom Neutral	.08½	.08¾	.08½	.08¾	.08½	.08¾
36 Miners' Neutral	.06¾	.07	.06¾	.07	.06¾	.07
300 Mineral Seal	.07¾	.08	.07¾	.08	.07¾	.08
CALIFORNIA—						
38-40 water white (high burning test)	.07½	.08	.07½	.08	.07½	.08
Engine distillate, 43-45 445 end point	.09¾	.10	.09¾	.10	.09¾	.10
Engine distillate, 42-44 480 end point	.09¼	.09½	.09¼	.09½	.09¼	.09½
CHICAGO DISTRICT (Based on Group 3)—						
41-43 water white Kerosene	.08¾	.09	.08		.08¼	.08½
42 44 water white Kerosene	.09¼	.09½	.08½		.09	

*Colorado points.

FUEL OILS

	Aug. 17		Aug. 10		Aug. 3	
KANSAS—						
24 26 Fuel Oil	1.40	1.45	1.35	1.40	1.35	1.40
32 36 Gas Oil	.04⅝	.04¾	.04½	.04⅝	.04⅝	.04¾
38-40 Distillate	.05½		.05¼	.05½	.05¼	.05½
OKLAHOMA (Group 3)—						
Below 22 Fuel Oil (sellers' cars)	1.30	1.32½	1.25		1.25	
22-26 Fuel Oil (sellers' cars)	1 35	1.37½	1.27½	1.30	1.27½	1.30
24-26 Fuel Oil (sellers' cars)	1.37½	1.40	1.30	1.35	1 30	1.35
26-30 Fuel Oil (sellers' cars)	1.45		.135	1.37½	1.35	1.37½
28-30 Fuel Oil (sellers' cars)	1.50	1.55	1.45	1.50	1.45	1.50
32-36 Gas Oil (cracking stock)	.04½	.04⅝	.04¼	.04⅜	.04⅜	.04½
36-38 Distillate	.05	.05¼	.04¾	.05	.04⅜	.05
32 36 Gas Oil (cracking stock)	.04½	.04⅝	.04¼	.04⅜	.04⅜	.04½
36-38 Straw Distillate	.05	.05¼	.04¾	.05	.04⅜	.05
38-40 Straw Distillate	.05¼	.05⅜	.05	.05¼	.05	.05¼
NORTH TEXAS—						
24-26 Fuel Oil (sellers' cars)	1.50		1.45	1.50	.140	1.45
32-36 Gas Oil (straw)	.04½	.04⅝	.04¼	.04⅜	.04⅜	.04½
38 40 Straw Distillate	.05⅛	.05¼	.05	.05¼	.05	.05¼
NORTH LOUISIANA—						
18-20 Fuel Oil	1.32½	1.37½	1.32½	1.37½	1.35	1.40
32-36 Gas Oil (straw)	.04½	.04¾	.04½	.04¾	.04¼	.04½
32-36 Gas Oil Oil (dark)	.04½	.04¾	.04¼	.04½	.04¼	.04¼
36-38 Distillate	.05		.04⅞	.05	.04¾	.05
ARKANSAS—						
38-40 Distillate	.05	.05¼	.04¾	.05	.04¾	.05
32-36 Gas Oil	.04½	.04¾	.04½	.04¾	.04½	.04¾
16-20 Refinery Fuel Oil	1.22½	1.30	1.20	1.25	1.22½	1.25
GULF COAST (South Texas)—						
Gas Oil	.05⅝	.05¾	.05⅝	.05¾	.05⅝	.05¾
Fuel Oil	1.75	1.85	1.75	1.85	1.75	1.85
PENNSYLVANIA—						
30-34 Fuel Oil	.05¾	.05⅞	.05¾	.05⅞	.05¾	.05⅞
36-40 Fuel Oil	.06¼	.06½	.06¼	.06½	.06¼	.06½
CALIFORNIA—						
33 36 Distillate	.04	.04¾	.04	.04¾	.04	.04¾
27 32 Distillate	.03¾	.04	.03¾	.04	.03¾	.04
15-20 Fuel Oil (at tide water)	1.00	1.04	1.00	1.04	1.00	1.04
27 plus Diesel	1.15	1.19	1.15	1.19	1.15	1.19
CHICAGO DISTRICT (Based on Group 3)—						
24-26 Fuel Oil (sellers' cars) Group 3	1 37½	1.40	1.30	1.35	1.27½	1.32½
22-26 Fuel Oil (sellers' cars) Group 3	1.35	1.37½	1.25	1.30	1.25	1.30
18-22 (Group 3)	1.30	1.32½	1.25	1.27½	1.25	1.27½
18-20 (Smackover)	1.25	1.27½	1.20	1.25	1.22½	1.25
32-36 Gas Oil	.04¼	.04⅜	.04¼	.04⅜	.04⅜	.04½
36-38 Distillate	.05	.05¼	.04⅜	.05	.04⅞	.05
38-40 Straw Distillate	.05¼	.05½	.05⅛	.05¼	.05	

LUBRICATING OILS AND WAX

	Aug. 17		Aug. 10		Aug. 3	
OKLAHOMA (Group 3)—						
70-80 vis., 2½ color, 20 25 cold test	.06	.07	.06	.07	.06	.07
100 vis., 3 color, 20 25 cold test	.06½	.07	.06½	.07	.06½	.07
100 vis., 2 color, 20-25 cold test	.07	.07½	.07	.07½	.07	.07½
150 vis., 4 color, 20-25 cold test	.09¾		.09¾		.09¾	
150 vis., 3 color, 20-25 cold test	.09½	.10	.09½	.10	.09½	.10
180 vis., 4 color, 23-28 cold test	.10	.10½	.10	.10½	.10	.10½
180 vis., 3 color, 23-28 cold test	.10½	.11½	.10½	.11½	.10½	.11½
200 vis., 4 color, 23-28 cold test	.11¼	.11½	.11¼	.11½	.11¼	.11½
200 vis., 3 color, 23-28 cold test	.11¼	.12¼	.11¼	.12¼	.11¼	.12¼
220 vis., 4 color, 25 30 cold test	.13		.13		.13	
220 vis., 3 color, 25-30 cold test	.13½	.14	.13½	.14	.13½	.14
240 vis., 4 color, 25 30 cold test	.14	.14½	.14	.14½	.14	.14½
240 vis., 3 color, 25-30 cold test	.14½	.15	.14½	.15	.14½	.15
280 vis., 4 color, 25-30 cold test	.15½	.16½	.15½	.16½	.15½	.16½
280 vis., 3 color, 25-30 cold test	.16½	.17	.16½	.17	.16½	.17
180 vis., 5 color, 23-28 cold test	.09¾	.10¼	.09¾	.10¼	.09¾	.10¼
200 vis., 5 color, 23-28 cold test	.10¾	.11¼	.10¾	.11¼	.10¾	.11¼
220 vis., 5 color, 25-30 cold test	.12	.12¾	.12	.12¾	.12	.12¾
240 vis., 5 color, 25-30 cold test	.13	.14	.13	.14	.13	.14
280 vis., 5 color, 25-30 cold test	.15	.16	.15	.16	.15	.16
Cylinder Stocks:						
180 200 vis., S. R. green, 40-45 cold test	.08¼	.11	.08¼	.11	.08¼	.11
190 200 vis., S. R. green, 40-45 cold test	.08	.08½	.08	.08½	.08	.08½
170-190 dark green, 40-45 cold test	.06	.06½	.06	.06½	.06	.06½
190-200 vis. @ 210 "D" Bright Stock	.33	.35	.33	.35	.33	.35
200-210 vis. @ 210 "E" Bright Stock	.30	.31	.30	.31	.30	.31
150 vis. @ 210 "E" Bright Stock	.27	.28	.27	.28	.27	.28
150 vis. @ 210 "D" Bright Stock	.28	.31	.28	.31	.28	.31
Waxes:						
124-124 White Crude Scale Wax	.04¾		.04¾		.04¾	
PENNSYLVANIA—						
150, 3 color	.23		.23		.23	
180, 3 color	.26½		.26½		.26½	
200, 3 color	.28½		.28½		.28½	
220, 3 color	.30		.30		.30	
600, steam refined	.13½		.13½		.13½	
635, steam refined	.17		.17		.17	
650, steam refined	.18		.18		.18	
600, Pennsylvania flash	.25½		.25½		.25½	
630, Pennsylvania flash	.33		.33		.33	

REFINERY AND CRUDE PRICES

Quotations on Principal Refined Products and Crude Petroleum Markets in All the American Oil Fields

	Aug. 17		Aug. 10		Aug. 3	
*550, E filtered	.19		.19		.19	
600, E filtered	.19½		.19½		.19½	
*600, E filtered	.20½		.20½		.20½	
600, D filtered	.26½		.26½		.26½	
550, E filtered	.18		.18		.18	
550, D filtered	.22		.22		.22	
Pennsylvania Bright Stock	.41½		.41½		.41½	
122-124 White Crude Scale Wax	.05¼	.05⅜	.05¼	.05⅜	.05¼	.05⅜
†124-126 White Crude Scale Wax	.05⅜	.05½	.05⅜	.05½	.05⅜	.05½

*At Warren, Pa. †At New York City.

GULF COAST (South Texas)—						
Zero Black	.06	.07	.06	.07	.06	.07
No. 2 color, 100 vis., pale oil	.07½	.08	.07½	.08	.07½	.08
No. 3 color, 200 vis., pale oil	.11½	.12	.11½	.12	.11½	.12
No. 3½ color, 300 vis., pale oil	.12½	.13½	.12½	.13½	.12½	.13½
No. 3¾ color, 500 vis., pale oil	.14½	.15	.14½	.15	.14½	.15
No. 4 color, 750 vis., pale oil	.18½	.19	.18½	.19	.18½	.19
No. 2 plus color, 200 vis., pale filtered	.21½		.21½		.21½	
No. 2 color, 300 vis., pale filtered	.24½		.24½		.24½	
No. 2½ color, 500 vis., pale filtered	.27½		.27½		.27½	
No. 2½ color, 750 vis., pale filtered	.35½		.35½		.35½	
No. 5 to 6 color, 200 vis., red oil	.09½	.10	.09½	.10	.09½	.10
No. 5 to 6 color, 300 vis., red oil	.11½	.13	.11½	.13	.11½	.13
No. 5 to 6 color, 500 vis., red oil	.12½	.13	.12½	.13	.12½	.13
No. 5 to 6 color, 750 vis., red oil	.16½	.17½	.16½	.17½	.16½	.17½
CALIFORNIA—						
130 vis., 2½-3 color	.10	.11½	.10	.11½	.10	.11½
200 vis., 2½ 3 color	.13½	.14½	.13½	.14½	.13½	.14½
300 vis., 3 -3½ color	.15	.16	.15	.16	.15	.16
350 vis., 3½-4 color	.16½	.17½	.16½	.17½	.16½	.17½
400 vis., 3½-4 color	.18	.19	.18	.19	.18	.19
Red Neutrals:						
200 vis., 4½-5 color	.12	.13	.12	.13	.12	.13
300 vis., 5 -6 color	.13	.14	.13	.14	.13	.14
400 vis., 5 -6 color	.15	.16	.15	.16	.15	.16
500 vis., 4½-5 color	.18	.19	.18	.19	.18	.19
500 vis., 6 -6½ color	.16	.17	.16	.17	.16	.17
600 vis., 6½ plus color	.17	.18	.17	.18	.17	.18

Note: Bright stocks are not manufactured commercially on the Pacific Coast.

NEW YORK (BAYONNE) REFINERY PRICES

Gasoline:	Aug. 17	Aug. 10	Aug. 3
U. S. Motor, 58-60 437	.14½	.14½	.14
Export, 64-66 375	.16	.16	.16
Kerosene, prime white, 41 43	.10	.10	.09½
*Bunker Oil, 14-16, per bbl.	1.75	1.75	1.75
*Diesel Oil, 28 30, per bbl.	2.50	2.50	2.50
Gas Oil, 28 plus	.06¾	.06¾	.06¾
Cylinder Oil, light filtered, 600 s.r.	.29	.29	.29
Bright Stock, No. 5, 150 vis., at 212 F.	.41	.41	.41
White Neutral, No. 1, 170 vis., 1 color	.37	.37	.37
Pale Oil, "25," 170 vis., 3½ color	.13	.13	.13
Pale Oil, "28," 100 vis., 2 color	.08	.08	.08
Red Oil:			
No. 3, 160 vis., 7 color	.11	.11	.11
No. 2, 212 vis., 5½ color	.12	.12	.12
No. 1, 265 vis., 5½ color	.13½	.13½	.13½
Polar, 295 vis., 6 color	.14	.14	.14
Paraffin Wax, refined:			
120-122 a.m.p., per lb.	.06	.06	.06
125-127 a.m.p., per lb.	.06⅛	.06⅛	.06⅛
130-132 a.m.p., per lb.	.06½	.06½	.06½
135-137 a.m.p., per lb.	.07	.07	.07
Petrolatum, in bbls., per lb.:			
Dark green	.01⅞	.01⅞	.01⅞
Amber	.03⅛	.03⅛	.03⅛
Light amber	.03½	.03½	.03½
Cream	.05½	.05½	.05½
Lily white	.07½	.07½	.07½
Snow white	.08½	.08½	.08½

*Lighterage 5.5c a barrel extra.

NEW YORK CASE EXPORT PRICES

	Aug. 17	Aug. 10	Aug. 3
Gasoline, U. S. Motor, 58-60	.28.90	.28.90	.28.90
Kerosene:			
Standard white Kerosene	.19 40	.19.15	.19.15
Water white Kerosene	.20.90	.20.65	.20.65

LOS ANGELES EXPORT PRICES

	Aug. 17		Aug. 10		Aug. 3	
Kerosene water white	.05½	.06½	.05½	.06½	.05½	.06½
U. S. Motor Gasoline, 54-56 437 e.p.	.10	.10½	.10	.10½	.10	.10½

CRUDE OIL PRICES

OKLAHOMA, KANSAS AND NORTH TEXAS

***Prairie Oil & Gas Co.**
(Oklahoma, Kansas and North and East Central Texas)
(Effective May 15)

28° to 28.9°	$1.65
29° to 29.9°	1.73
30° to 30.9°	1.81
31° to 31.9°	1.89
32° to 32.9°	1.97
33° to 33.9°	2.05
34° to 34.9°	2.13
35° to 35.9°	2.21
36° to 36.9°	2.29
37° to 37.9°	2.37
38° to 38.9°	2.45
39° to 39.9°	2.53
40° to 40.9°	2.61
41° to 41.9°	2.69
42° to 42.9°	2.77
43° to 43.9°	2.85
44° to 44.9°	2.93
45° to 45.9°	3.01
46° to 46.9°	3.09
47° to 47.9°	3.17
48° to 48.9°	3.25
49° to 49.9°	3.33
50° to 50.9°	3.41
51° to 51.9°	3.49
52° and above	3.57

*Other major purchasers except as noted below.

Champlin Refining Co.
(Garber and Tonkawa)
(Effective May 15)
Schedule based on Prairie Oil & Gas Co. paying 10 cents additional for each grade of crude above 38° gravity.

Humble Oil & Refining Co.
(Effective May 15)
(North and East Central Texas, Ranger, Mexia, Powell, Richland, Wortham, Currie, Moran, Big Lake, Nacona and Lytton Springs)

Same prices as Prairie Oil & Gas Co. schedule. Postings below 28° gravity 8 cents less for each degree, effective June 21.

Magnolia Petroleum Co.
(Effective May 15)
(Oklahoma, Kansas and North and East Central Texas, except Corsicana heavy, and Lytton Springs of South Central Texas)

Below 28°	$1.30

Other grades same as Prairie Oil & Gas Co.

Iatan	$1.15
Corsicana heavy	1.25
Panola County:	
30° to 34.9°	$1.95
35° to 37.9°	2.10
38° and above	2.25

Texhoma Oil & Refining Co.
(Wichita Falls, Tex., District)
(Effective May 16)

28° to 28.9°	$1.70
29° to 29.9°	1.78
30° to 30.9°	1.86
31° to 31.9°	1.94
32° to 32.9°	2.02
33° to 33.9°	2.10
34° to 34.9°	2.18
35° to 35.9°	2.26
36° to 36.9°	2.34
37° to 37.9°	2.42
38° to 38.9°	2.50
39° to 39.9°	2.58
40° to 40.9°	2.66
41° to 41.9°	2.74
42° to 42.9°	2.82
43° to 43.9°	2.90
44° and above	2.98

TEXAS PANHANDLE

Kay County Gas Co.
Magnolia Petroleum Co.
(Effective May 15)

28° to 28.9°	$1.35
29° to 29.9°	1.40
30° to 30.9°	1.45
31° to 31.9°	1.50
32° to 32.9°	1.55
33° to 33.9°	1.60
34° to 34.9°	1.65
35° to 35.9°	1.70
36° to 36.9°	1.75
37° to 37.9°	1.80
38° to 38.9°	1.85
39° and above	1.90

Humble Oil & Refining Co.
(Effective June 21)

39° to 39.9°	$1.90
40° to 40.9°	1.95
41° to 41.9°	2.00
42° to 42.9°	2.05
43° to 43.9°	2.10
44° and above	2.15

Grades below 39° gravity same as posted by Magnolia Petroleum Co. and Kay County Gas Co.

Plains Pipe Line Co.
(August 1)

28° to 28.9°	$1.10
29° to 29.9°	1.15
30° to 30.9°	1.20
31° to 31.9°	1.25
32° to 32.9°	1.30
33° to 33.9°	1.35
34° to 34.9°	1.40
35° to 35.9°	1.45
36° to 36.9°	1.50
37° to 37.9°	1.55
38° to 38.9°	1.60
39° and above	1.65

*GULF COAST

****Humble Oil & Refining Co.**
(Effective May 15)

Grade A	$1.60
Grade B—	
Below 25°	1.50
25° to 25.9°	1.55
26° to 26.9°	1.60
27° to 27.9°	1.65
28° to 28.9°	1.70
29° to 29.9°	1.75
30° to 30.9°	1.80
31° to 31.9°	1.85
32° to 32.9°	1.90
33° to 33.9°	1.95
34° to 34.9°	2.00
35° and above	2.05
Boling (December 26)	1.50
High Island (Sun Oil Co.) (Apr. 30)	1.40

The Texas Company
(Effective June 8)

Grade A	$1.60
Grade B	1.50
†Light Crude—	
35° to 35.9°	2.05
36° to 36.9°	2.10
37° to 37.9°	2.15
38° to 38.9°	2.20
39° to 39.9°	2.25
40° and above	2.30

**The Sun Pipe Line Co. and Gulf Pipe Line Co.'s postings same as Humble Oil & Refining Co.'s.

†The Texas Company's postings on light crude under 35° gravity are same as Humble Oil & Refining Co.'s grades and prices for Grade B crude.

*Gulf Pipe Line Co., Magnolia Petroleum Co. and The Texas Company post separate schedule for Spindletop crude as follows:

Spindletop Heavy—	
Grade A	$1.25
Grade B	1.15
Spindletop Light—	
Below 25°	1.15
25° to 25.9°	1.20
26° to 26.9°	1.25
27° to 27.9°	1.30
28° to 28.9°	1.35
29° to 29.9°	1.40
30° to 30.9°	1.45
31° to 31.9°	1.50

SOUTH CENTRAL AND SOUTHWEST TEXAS

***Magnolia Petroleum Co.**

Luling (contract) (Eff. May 18)	$1.30
Mirando (Webb, Jim Hogg and Zapata Counties) (May 15)	1.25
Rockdale-Minerva (Milam County)	1.25
Thrall	1.00
Calliham (Live Oak and McMullen Counties) (May 15)	1.75
§Lockhart (Lytton Springs)	
Somerset (Grayburg Pipe Line Co.): (Effective May 17)	
28° to 28.9°	$1.25
29° to 29.9°	1.35
30° to 30.9°	1.71
31° to 31.9°	1.89
32° to 32.9°	1.97
33° to 33.9°	2.05
34° to 34.9°	2.13
35° to 35.9°	2.20
36° to 36.9°	2.29
37° to 37.9°	2.37
38° and above	2.45

*Texpata Pipe Line Co. and Humble Pipe Line Co. also post in Mirando Field paying same prices as Magnolia Petroleum Co.

§Lockhart prices same as for North and East Central Texas. Lockhart posted by Magnolia Petroleum Co. and Humble Oil & Refining Co.

WEST TEXAS

Kay County Gas Co.
(Crane, Upton and Crockett Counties. Effective August 11.)

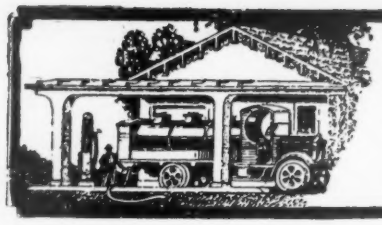
Below 26°	$1.20
26° to 26.9°	1.25
27° to 27.9°	1.30
28° to 28.9°	.135
29° to 29.9°	1.40
30° to 30.9°	1.45
31° to 31.9°	1.50
32° to 32.9°	1.55
33° to 33.9°	1.60
34° to 34.9°	1.65
35° to 35.9°	1.70
36° and above	1.75

ARKANSAS AND NORTH LOUISIANA

Standard Oil Co. of Louisiana
(Effective May 18)

Caddo:	
Below 26° (July 24)	$1.40
26° to 28.9° (July 24)	1.55
29° to 31.9° (July 24)	1.70
32° to 34.9°	2.25
35° to 37.9°	2.35
38° and above	2.45
Homer below 31°	1.85
31° to 32.9°	2.00
33° to 34.9°	2.10
35° and above	2.20
Haynesville below 33°	2.00

(Continued on Page 160)



TANK WAGON MARKETS

Tankwagon quotations for gasoline and kerosene in United States as furnished by the larger marketing concerns, Aug. 17.

ALL TANK WAGON AND SERVICE STATION QUOTATIONS INCLUDE TAXES

STANDARD OIL CO. (INDIANA)
Main Service Station Price

	Gasoline Tank wagon	Gasoline Service station	Gasoline Inclds tax of	Kero. Tank wagon
Chicago Dist.				
†Less than 100 gals.	19.0	21.0	...	14.5

Tank wagon prices on April 19, 1922: g. up 1½c; May 8, up 1c; June 27, g. and k. up 1c; July 19, g. down 2c, k. down 1c; Oct. 10, g. down 2c; Oct. 21, g. down 1c; Feb. 5, 1923, g. up 1c; Feb. 20, g. up 1c; Aug. 14, g. down 5.6c; Oct. 4, k. down 1½c; Nov. 10, g. down 1.4c; Dec. 20, g. up 2c; Jan. 12, 1924, g. up 2c; k. up 1c; Feb. 5, g. up 2c, k. 1c; July 18, g. down 1c; July 30, g. and k. down 1c; Sept. 12, g. down 2c; Jan. 23, 1925, g. up 1c; Jan. 26, g. up 1c; Jan. 31, g. up 1c; Feb. 12, g. up 2c, k. up 1c; April 19, g. down 1c; July 14, g. up 1c; Aug. 25, g. down 2c, k. down 1c; Sept. 1, g. down 1c; Feb. 4, 1926, g. up 1c; k. up 1c; April 16, 1926, k. up 1c; April 24, 1926, k. up ½c; April 29, 1926, g. up 1c, k. up ½c; May 6, 1926, k. up ½c; May 17, g. and k. up 1c July 1, k. down 1c; July 3, k. down 1c; Aug 13, k. up 1c.

Decatur, Ill.	19.2	21.2	...	15.0
E. St. Louis	18.1	20.35	...	14.1
Joliet	19.4	21.4	...	15.2
Peoria	19.2	21.2	...	15.0
Quincy	19.2	21.2	...	14.8
Davenport, Ia.	21.5	23.5	2.0	15.4
Des Moines	21.5	23.5	2.0	15.4
Keokuk	21.5	23.5	2.0	15.4
Sioux City	21.0	23.0	2.0	15.0
Duluth, Minn.	22.5	24.5	2.0	16.1
Minneapolis	22.2	24.2	2.0	16.1
La Cross, Wis.	22.2	24.2	2.0	15.9
Milwaukee	21.1	23.1	2.0	14.8
Madison	21.3	23.3	2.0	15.0
Detroit, Mich.	21.8	23.8	2.0	15.7
Grand Rapids	21.7	23.7	2.0	15.6
Saginaw	21.9	23.9	2.0	15.8
Evansville, Ind.	22.0	24.0	3.0	15.9
Ft. Wayne	22.4	24.4	3.0	15.4
Indianapolis	22.2	24.2	3.0	15.2
South Bend	22.4	24.4	3.0	15.4
Fargo, N. D.	23.9	25.9	2.0	18.1
Huron, S. D.	23.5	25.5	3.0	16.6
Sioux Falls	22.0	24.0	3.0	16.1
*K. C., Mo.	21.9	23.9	3.0	13.8
*Springfield	21.8	23.8	3.0	14.7
*St. Louis	20.6	22.9	2.5	14.5
*St. Joseph	21.0	23.0	2.5	14.4
†Wichita, Kan.	19.8	21.8	2.0	14.2
Bartlesville, Ok.	20.8	22.8	3.0	14.3

NAPHTHAS

	Tank wagon	Tank car
Oleum spirits	21.0	15.5
V. M. & P. naphtha	23.0	16.5
Cleaners naphtha	21.0	15.5

Tank wagon prices f.o.b. Chicago; tank car prices f.o.b. Whiting.

*State tax is 2c. Remainder is city tax.
†Quantity price on more than 100 gallons, 18.0.
‡At all Kansas points a discount of 1 cent a gallon is allowed from the tankwagon postings on dumps of 50 gallons or more.

The following monthly rebate system is effective on tankwagon schedules throughout the territory of Standard Oil Co. of Indiana: Over 750 gallons, ½c; over 2,000 gallons, ¾c; over 3,000 gallons, 1c; over 6,000 gallons, 1½c; over 10,000 gallons, 2c. If quantity bought during the year is equal to 12 times the monthly agreed purchases the discount will be paid or credited on the entire quantity less monthly payments. Service station customers will receive discount of 1 cent a gallon on purchases amounting to 200 gallons a month or 2,400 gallons a year; and 2 cents a gallon on 600 gallons a month or 7,200 gallons a year.

SOUTHWESTERN DISTRICT
*Magnolia Petroleum Co.

	Gasoline Tank wagon	Gasoline Service station	Gasoline Inclds tax of	Kero. Tank wagon
Dallas, Tex.	†21.0	21.0	1.0	14.0
Fort Worth	†21.0	21.0	1.0	14.0
Houston	†21.0	21.0	1.0	14.0
San Antonio	†19.0	19.0	1.0	14.0
El Paso	†22.0	22.0	1.0	15.0
Texarkana	†20.0	20.0	1.0	14.0
Muskogee, Ok.	20.0	23.0	3.0	13.0
Oklahoma City	20.0	23.0	3.0	13.0
Tulsa	20.0	23.0	3.0	13.0
Little Rock	21.0	24.0	4.0	15.5
Ft. Smith, Ark.	21.0	24.0	4.0	15.5

*The following is the schedule of discounts on quantity gasoline sales adopted by the Magnolia Petroleum Co. in Oklahoma: Over 750 gallons a month, ½c; over 2,000 gallons, ¾c; over 3,000 gallons 1c; over 4,500 gallons, 1¼c; over 6,000 gallons, 1½c; over 8,000 gallons, 1¾c; over 10,000 gallons, 2c. If the quantity bought during the year is 12 times the monthly agreed purchases, the discount will be paid or credited on the entire quantity for the year less any monthly purchases.

The schedule on service station deliveries is: Over 200 gallons a month, 1c; over 300 gallons, a month, 1¼c; over 400 gallons, 1½c; over 500 gallons, 1¾c; over 600 gallons, 2c. The same rule applies for annual purchases as in the tankwagon discounts.

†Magnolia maintains only a retail schedule in Texas with dealers and large consumers allowed a flat 3-cent discount.

CENTRAL SOUTH DISTRICT
Standard Oil Co. (Louisiana)

	Gasoline Tank wagon	Gasoline Service station	Gasoline Inclds tax of	Kero. Tank wagon
*New Orleans	20.5	23.5	3.0	15.0
Alexandria	20.0	23.0	2.0	16.0
Baton Rouge	19.0	22.0	2.0	14.5
LaFayette	20.0	23.0	2.0	15.5
Lake Charles	20.5	23.5	2.0	16.0
Shreveport, La.	19.0	22.0	2.0	15.0
Memphis, Tenn.	21.5	24.5	3.0	17.0
Chattanooga	23.5	26.5	3.0	17.5
Knoxville	23.5	26.5	3.0	18.0
Nashville	22.5	25.5	3.0	18.0
Bristol	24.0	27.0	3.0	17.5
Little Rock Ark	22.0	25.0	4.0	16.0

*Tax of 3c includes city tax of 1c.

SOUTHERN DISTRICT
Standard Oil Co. (Kentucky)

	Gasoline Tank wagon	Gasoline Service station	Gasoline Inclds tax of	Kero. Tank wagon
Atlanta, Ga.	25.0	28.0	3.5	19.0
Augusta	25.0	28.0	3.5	19.0
Macon	25.0	28.0	3.5	19.0
Savannah	23.0	25.0	3.5	17.0
Birm'ghm, Ala.	22.0	25.0	2.0	18.5
Mobile	21.0	24.0	2.0	17.0
Montgomery	23.0	26.0	3.0	19.5
Clarksdale, Miss	23.0	26.0	4.0	16.5
Jackson	23.0	26.0	4.0	16.5
Natchez	22.5	25.5	4.0	16.0
Vicksburg	22.5	25.5	4.0	16.0
Jack'ville, Fla.	23.0	26.0	4.0	17.0
Miami	25.0	28.0	4.0	18.5
Pensacola	23.0	26.0	4.0	17.5
Tampa	23.0	26.0	4.0	17.0
Covington	24.0	27.0	5.0	18.0
Louisville	25.0	28.0	5.0	17.0
Lexington, Ky.	25.0	28.0	5.0	18.0

In addition to the state tax of 2c on gasoline, Montgomery has city tax of 1c on gasoline and ½c on kerosene. Prices in Georgia include ½c inspection fee on gasoline and kerosene; in Florida, an inspection fee of 0.125c; in Alabama, an inspection fee of ½c on kerosene only.

ROCKY MOUNTAIN DISTRICT
Continental Oil Co.

	Gasoline Tank wagon	Gasoline Service station	Gasoline Inclds tax of	Kero. Tank wagon
Denver, Colo.	22.0	22.0	2.0	17.0
Pueblo	22.0	24.0	2.0	17.0
Casper, Wyo.	22.5	24.5	2.5	15.5
Cheyenne	23.5	25.5	2.5	17.0
Butte, Mont.	24.0	24.0	2.0	19.5
Helena	26.0	28.0	2.0	19.5
Salt Lake, Utah	26.0	28.0	3.5	18.5
Boise, Idaho	27.0	29.0	3.0	20.5
Albuquerque, N. Mex.	28.5	28.5	3.0	19.0

STANOLIND FURNACE OIL
(Standard Oil Co. of Indiana)

Less than 100 gallons	10.0
100 to 399 gallons	9.5
400 or more gallons	9.0

ATLANTIC COAST DISTRICT
Standard Oil Co. (New Jersey)

	Gasoline Tank wagon	Gasoline Service station	Gasoline Inclds tax of	Kero. Tank wagon
Atlantic City	19.0	....	...	16.0
Newark, N. J.	19.0	21.0	...	16.0
Annapolis, Md.	21.0	....	2.0	16.0
Baltimore	21.0	24.0	2.0	16.0
Cumberland	21.0	24.0	2.0	16.0
Washington	21.0	24.0	2.0	16.0
Danville, Va.	23.5	....	4.5	16.0
Norfolk	23.5	26.5	4.5	16.0
Petersburg	23.5	26.5	4.5	16.0
Roanoke	23.5	26.5	4.5	16.0
Richmond	23.5	26.5	4.5	16.0
Charleston, W. Va.	22.5	25.5	3.5	16.0
Keyser	22.5	....	3.5	16.0
Parkersburg	22.5	25.5	3.5	16.0
Wheeling	22.5	25.5	3.5	16.0
Charlotte, N. C.	23.5	26.5	4.0	16.0
Hickory	23.5	....	4.0	16.0
Mt. Airy	23.5	26.5	4.0	16.0
Salisbury	23.5	26.5	4.0	16.0
Charleston, S.C.	24.5	27.5	5.0	16.0
Columbia	24.5	27.5	5.0	16.0

NEW YORK AND PART OF NEW ENGLAND DISTRICT
Standard Oil Co. (New York)

	Gasoline Tank wagon	Gasoline Service station	Gasoline Inclds tax of	Kero. Tank wagon
Albany, N. Y.	21.0	....	...	17.0
*New York	21.0	....	...	17.0
Buffalo	20.0	....	...	17.0
Rochester	21.0	....	...	15.0
Syracuse	21.0	....	...	17.0
Boston, Mass.	21.0	....	...	17.0
Augusta, Me.	24.0	....	3.0	17.0
Manchester, N. H.	23.0	....	2.0	17.0
Burlington, Vt.	23.0	....	2.0	17.0

*Price in steel barrels.

Note: Standard Oil Co. of New York does not generally quote service station price in its territory. In most cases the service station price is 2 or 3 cents higher than tankwagon price.

NEBRASKA
Standard Oil Co. (Nebraska)

	Gasoline Tank wagon	Gasoline Service station	Gasoline Inclds tax of	Kero. Tank wagon
Omaha	21.25	23.25	2.0	15.0
McCook	22.75	24.75	2.0	16.5
Norfolk	21.75	23.75	2.0	15.5
N. Platte	22.75	24.75	2.0	16.25
Scottsbluff	22.25	24.25	2.0	15.75

CALIFORNIA CRUDE PRICES
*Standard Oil Co.-Union Oil Co.
(Effective March 11)

Gravity	Long Beach Huntington Beach Richfield Brea-Olinda Rosecrans Torrance-Inglewood	Whittier La Habra Montebello	Kern River Newhall-McKittrick Midway-Sunset Elk Hills Lost Hills Belridge	Coyote	Santa Fe Springs	Coalinga	Wheeler Ridge	Santa Maria Ventura Salt Lake
14°	.85	.85	.75	.85	....	.75	.75	.85
15°	.87	.85	.75	.85	....	.75	.75	.85
16°	.90	.85	.75	.85	....	.75	.75	.85
17°	.94	.85	.75	.85	....	.75	.75	.85
18°	.98	.86	.75	.86	....	.75	.75	.85
19°	1.04	.87	.75	.87	....	.75	.75	.85
20°	1.10	.89	.82	.90	.89	.79	.78	.90
21°	1.16	.91	.90	.98	.91	.86	.81	.97
22°	1.22	.94	1.00	1.06	.94	.93	.85	1.04
23°	1.28	.97	1.11	1.14	.97	1.00	.89	1.11
24°	1.34	1.01	1.22	1.22	1.02	1.07	.93	1.18
25°	1.40	1.05	1.33	1.30	1.08	1.14	.97	1.25
26°	1.46	1.09	1.44	1.38	1.16	1.21	1.01	1.32
27°	1.52	1.13	1.55	1.46	1.24	1.28	1.05	1.39
28°	1.58	1.17	1.66	1.54	1.32	1.35	....	1.46
29°	1.64	1.21	1.77	1.62	1.40	1.42	....	1.53
30°	1.70	1.25	1.88	1.70	1.48	1.49	....	1.60
31°	1.76	....	1.99	....	1.60	1.56	....	1.67
32°	1.84	....	2.10	....	1.72	1.63	....	1.73
33°	1.92	....	2.21	....	1.84	1.70	....	1.79
34°	2.00	....	2.32	....	1.96	1.77	....	1.85
35°	2.08	....	....	....	2.08	1.84	....	1.92
36°	2.16	....	....	....	2.16	....	....	....
37°	2.24	....	....	....	2.24	....	....	....
38°	2.34	....	....	....	2.34	....	....	....
39°	2.44	....	....	....	2.44	....	....	....
40°	2.54	....	....	....	....	....	....	....
41°	2.64	....	....	....	....	....	....	....
42°	2.74	....	....	....	....	....	....	....

*Column 2—Long Beach and Huntington Beach crudes, 14 to 32 degrees, inclusive; Richfield and Brea-Olinda, 14 to 30 degrees; Torrance and Inglewood, 14 to 28; Dominguez, 24 to 42 degrees. Rosecrans crude ranges from 14 to 42 degrees, but only Union Oil Co. posts below 24 degrees.

Column 3—Whittier and La Habra crudes, 14 to 22 degrees; Montebello, 14 to 30 degrees.

Column 4—Kern River, Newhall and McKittrick, 14 to 19 degrees; Midway-Sunset and Elk Hills, 14 to 33 degrees; Lost Hills and Belridge, 14 to 34 degrees.

Column 6—Santa Fe Springs. Only Union Oil Co. posts below 24 degrees.

Column 9—Salt Lake, 14 to 19 degrees, inclusive; Santa Maria, 14 to 30 degrees; Ventura, 14 to 35 degrees. Posted only by Union Oil Co.

PACIFIC COAST DISTRICT
Standard Oil Co. (California)

	Gasoline Tank wagon	Gasoline Service station	Gasoline Inclds tax of	Kero. Tank wagon
San Francisco	18.0	22.0	2.0	15.5
Los Angeles	16.5	20.5	2.0	16.5
Fresno	18.5	22.5	2.0	17.5
Reno, Nev.	23.5	27.5	4.0	18.0
Portland, Ore.	19.0	23.0	3.0	16.5
Seattle, Wash.	18.0	22.0	2.0	16.5
Spokane	22.0	26.0	2.0	20.5
Tacoma	18.0	22.0	2.0	16.5
Phoenix, Ariz.	25.0	28.0	3.0	21.5

PENNSYLVANIA-DELAWARE AND PART NEW ENGLAND
Atlantic Refining Co.

	Gasoline Tank wagon	Gasoline Service station	Gasoline Inclds tax of	Kero. Tank wagon
*Pittsburgh, Pa.	20.0	25.0	...	17.0
*Philadelphia	20.0	25.0	...	17.0
*Scranton	20.0	25.0	...	17.0
*Allentown	20.0	25.0	...	17.0
Altoona	20.0	25.0	...	17.0
*Erie	20.0	25.0	...	17.0
Dover, Del.	22.0	25.0	2.0	17.0
Wilmington	22.0	25.0	2.0	17.0
Spring'd, Mass.	21.0	23.0	...	17.0
Worcester	21.0	24.0	...	17.0
Boston	21.0	24.0	...	17.0
Providence, R.I.	22.0	24.0	1.0	17.0
Hartford, Conn.	23.0	26.0	2.0	16.0
New Haven	23.0	26.0	2.0	17.0

*Pennsylvania tax of 2c is collected by the dealer and paid by him direct to the state.

OHIO
Standard Oil Co. (Ohio)

	Gasoline Tank wagon	Gasoline Service station	Gasoline Inclds tax of	Kero. Tank wagon
All Ohio points	22.0	24.0	2.0	16.0

TANKWAGON PRICE CHANGES

August 13—Standard Oil Co. of Indiana advanced kerosene 1 cent throughout its territory. The Standard Oil Co. of Nebraska also advanced kerosene 1 cent in Nebraska.

KEROSENE PRICES HIGH PENNSYLVANIA MARKET

OIL CITY, Pa., Aug. 13.—In the Pennsylvania area the gasoline situation is about the same as it has been and there is not much change as the result of the past week's operations. Demand is big and in the opinion of refiners and marketers is extensive enough to hold up the price structure. Consumption continues very heavy and service stations report that the tourist business is the largest of the summer at the present time. Weather has been very favorable to heavy consumption of motor fuels during the past week.

Kerosene is much stronger and both demand and price are up. The threshing season will start soon and it is expected that the consumption of kerosene from this source this year will be very big.

Unfiltered cylinder stocks are in bad shape. Demand is very weak and although the price has been holding there is nothing in the situation which would warrant higher quotations. The demand for bright stock and for E and D filtered stocks has been very good.

The demand for neutrals during the week has been splendid and the price has been maintained easily. There has not been much buying this week of wax but the price remains unchanged. Fuel oil is comparatively strong with demand good.

GASOLINES SLUGGISH IN SHREVEPORT AREA

SHREVEPORT, La., Aug. 14.—U. S. Motor grade gasoline was sluggish in the Shreveport territory throughout the week while a steady market was found for all other products. Only in few instances were refiners unable to hold gasoline prices firm and only one refiner reported a fair business.

Natural gasolines were a little bearish the latter part of the week. The strength of that product was attributed to heavy buying the latter part of the week by one of the large refiners.

Kerosene's market was tight and little of the burning oil was available. Tankwagon raises during the week upset that market and it did not find its price level until the latter part of the week. Gas oils and distillates were strong as was fuel oil.

The picture in Arkansas was practically the same with all products in a firm position save gasoline.

WAR on WASTE!

THE SINCLAIR LAW OF LUBRICATION

for every machine
of every degree of
wear
there is a scientific
Sinclair Oil
to suit its speed
and seal its power

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MOTOR OIL

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Prospects for Heavy New Financing

Oil Stocks Sold off Slightly on Failure Standard (N.J.) to Increase Its Dividend. National Supply in Good Demand

By N. O. Fanning

New York Bureau, The Oil and Gas Journal, 30 Church Street, New York

NEW YORK, Aug. 16.—Oil stocks sold off slightly on the failure of the Standard Oil Co. of New Jersey to increase its dividend, but in well informed circles it was believed the company's expected action was only postponed.

National Supply was in good demand throughout the entire week.

New Financing

The feature of the oil situation from the financial viewpoint is the prospects for heavy new financing in the near future. This is foreshadowed by the apparent intention of the Standard Oil Co. of New Jersey to retire its preferred stock; by the statement of Sir Henri Deterding the other day that the oil industry would need a large amount of new capital for expansion, and by the announcement of acutal new financing by the Andian National Corp. and the Amerada Corp.

The Andian National Corp. will issue 625,000 additional shares of $10 par stock, to be offered to present stockholders at the rate of one share for four held, at par. Books are to be closed September 30 to October 15, and payments are to be made on or before October 15 in United States funds at the National Bank of Commerce.

The purpose of the issue is to provide funds for doubling the company's line in Colombia. At present the single line runs 30,000 bbls. of oil a day, and is operating at close to capacity.

Amerada Financing

The Amerada Corp. has just issued 100,000 shares of additional stock, bringing the total issue to 813,300 shares. This stock was sold under option to Dillon, Read & Co., according to the listing statement to the New York Stock Exchange. The price paid is not disclosed.

Standard of Nebraska

The Standard Oil Co. of Nebraska has changed its policy in paying dividends and in the future will declare dividends quarterly instead of semiannually. A quarterly dividend of 63 cents has been declared and an extra 25 cents, both payable September 20 to stockholders of record August 23. The stock is thus placed on a regular annual dividend basis of $2.50 a share.

Prior to the 50 per cent stock dividend and change in par value from $100 to $25, resulting in a 6 for 1 exchange, in May this year, dividends had been declared semiannually at the rate of $10 a year. An extra of $10 a share was also paid December 21, 1925. The present dividend of $2.50 annually on the new $25 par stock is equivalent to $15 annually on the old $100 par stock. On June 21 this year, subsequent to the split up in the stock, an initial dividend of $1.25 and an extra of 50 cents were paid.

Pennok Oil Corp.

The Pennok Oil Corp. reports for six months ended June 30, 1926, net income of $179,942 after interest, depreciation, depletion and Federal taxes, equivalent to $1.20 a share earned on 100,000 shares of no par capital stock. This compares with $720,409 or $4.80 a share in the first half of 1925.

Net income for June quarter of 1926 was $82,689, equal to 55 cents a share, comparing with $97,253, or 64 cents a share in preceding quarter and $263,862 or $1.75 a share in second quarter of previous year.

Mid-Continent Petroleum

The report of Mid-Continent Petroleum Corp., and subsidiaries for six months ended June 30, 1926, shows profit of $6,816,884 after interest, abandoned wells etc., but before depreciation, depletion and Federal taxes comparing with $7,346,734 before depreciation, depletion, etc., in first half of previous year.

Profit for June quarter was $3,962,624, against $2,854,259 in preceding quarter and $3,651,844 in June quarter of 1925.

Consolidated income account of Mid-Continent Petroleum Corp and subsidiaries compares as follows:

	1926	1925
Operating profit	$7,609,834	$8,152,383
Leaseholds, aban. wells	328,894	405,280
Interest	464,056	400,369
*Profit	$6,816,884	$7,346,734
Preferred dividends	226,853	235,114
Surplus	$6,590,031	$7,111,620
Quarter ended June 30,	1926	1925
Operating profit	$4,345,552	$4,083,509
Leaseholds, aban. wells	150,554	203,033
Interest	232,374	228,632
*Profit	$3,962,624	$3,651,844

*Before depreciation, depletion and Federal taxes.

Consolidated general balance sheet of Mid-Continent Petroleum Corp. and subsidiaries as of June 30, 1926, follows:

Assets: Oil reserves, refineries, pipelines, etc., less depreciation and depletion, $56,012,473; investments, $237,767; sinking fund, $890; cash, $5,999,997; United States Treasury certificates, $1,036,563; loans, $3,000,000; gold bonds in treasury, $589,822; notes receivable, $687,888; accounts receivable, $3,167,603; refined and crude oils, $7,970,740; materials and supplies, $2,624,682; deferred items, $1,431,448; total, $82,759,873.

Liabilities: Sinking fund gold bonds, $11,340,000; leasehold purchase obligation $1,022,281; accounts payable, $1,639,872; accrued interest, etc., $602,254; accrued Federal taxes, $253,027; deferred credit items, $100,257; preferred stock, $6,434,645; common stock (represented by 1,357,415 no par shares), $40,879,230; surplus from operations, $20,488,307; total, $82,759,873.

NEW YORK STOCK EXCHANGE—LIST OF ACTIVE STOCKS

Stocks—	Par	Clos. Quot. Aug. 16	Clos. Quot. Aug. 9	1926 High	1926 Low	1925 High	1925 Low	1924 High	1924 Low
Amerada Corp.	..	31½	32	31⅝	21⅜	..	..	..	..
Atlantic Ref., com.	100	110¼	114	128⅝	97	117½	95⅛	140½	78½
Barnsdall "A"	25	26	26	33½	23½	33½	18⅝	29½	14
California Pet., com.	25	32½	33⅛	38⅛	30⅝	34⅜	23⅞	29	19⅞
Houston Oil	100	59⅞	*60	72	50¼	85	59	82½	61
Independent Oil & Gas	..	25⅝	26½	34	20¼	41¾	13½	16¼	5¾
Indian Refining	10	10	10⅝	13¾	9½	14¼	5½	7	3⅝
Lago Oil & Trans.	..	21¾	22	24½	19¼	..	..	..	..
Louisiana Oil	10	16⅛	16½	19⅝	12	23¾	13¾	..	..
Maracaibo	..	23½	22½	28⅞	20⅜	35½	20⅜	37¼	25⅜
Marland	..	58¾	59	63⅜	49¼	60⅛	32⅝	42	29
Mexican Seaboard	..	11¼	11⅞	13⅜	6	22½	9	25⅜	14⅛
Mid-Continent Pet.	..	31½	32¼	41	25⅝	38	25⅜	40¼	22⅝
National Supply	50	65½	*65	66	55½	71	54⅜	72½	54
Oil Well Supply	25	34⅜	34⅜	36	30	38	33⅜	..	..
Pan. Amer., B.	50	67¼	68⅛	78⅜	56⅛	83⅞	59½	65	44½
Pan. Amer., Western B.	..	37⅜	38⅛	46	34	49⅜	37¼	..	..
Phillips Pet.	..	48	47⅝	49½	42½	47⅛	36¼	52¼	28½
Producers & Refiners	50	*11	12	17½	11	32⅝	12½	32½	29¾
Pure Oil, com.	..	26⅞	27⅜	31	25⅜	33⅜	25⅛	30¼	20
Royal Dutch, N. Y., sh.	13.40	50⅜	49¼	57⅜	49⅜	57⅜	48¼	59½	40⅜
Shell Transport	10	*42	*44	48⅞	42	49	39⅝	42	33
Shell Union, com.	..	28⅝	27⅝	28⅝	24	28⅜	21⅝	22½	15⅜
Simms Pet.	10	17½	17	28⅝	16½	28½	17⅜	24	10⅝
Sinclair Consolidated, com.	..	21⅝	21½	24⅞	19⅝	24⅞	17	17½	15
Skelly Oil	25	34⅝	34½	37½	27	32½	21⅜	29	17⅛
Standard of California	25	61½	59½	62⅜	54	67¼	51½	68½	55½
Standard of New Jersey, com.	25	43⅜	43	46⅜	40¼	47½	38⅜	41½	33
Sun Oil Co.	..	32	32⅞	41⅝	30⅛	43⅝	38⅛	..	..
The Texas Company	25	54	53½	56	48	55	42⅜	45⅝	37⅜
Texas Pacific Coal & Oil	10	15	14⅝	19½	12½	23⅜	11	15¼	8¼
Tide Water Oil	25	30½	31	39¼	30⅛	..	..	..	..
Transcontinental	..	4⅞	4⅞	5½	3	5⅞	3½	6¼	3⅜
Union Oil of California	25	53⅜	53¼	58	37¼	43⅝	33⅛	39	25⅛
Union Tank, com.	100	*94	*94	94⅞	84¼	‡134	118	132⅝	94
White Eagle Oil & Refining	..	26	26¼	29⅝	25⅛	31⅜	25⅝	29⅝	23¼
Standard Oils									
Anglo-American Oil	£1	17⅞	16⅞	19¾	16½	26¾	17½	18¾	14⅝
Borne Scrymser	100	*295	295	295	226	240	205	164	150
Buckeye Pipe Line	50	*47½	48	59½	47⅝	72	63½	85½	51
Chesebrough Mfg. Co.	25	*73	*73	72¾	63	74	48¼	62½	29¼
Continental	10	21⅜	21⅝	25⅞	19¼	31⅜	21⅞	..	..
Crescent Pipe Line	25	*16	*16	16	14½	17½	10	20	11¾
Cumberland Pipe Line	100	*112	113	137	108	156	128	148	108
Eureka Pipe Line	100	49½	*47	63¾	47¾	96	61¼	105	74
Galena Signal, com.	100	*18½	*18½	32½	17¼	68½	23½	69¾	62½
Humble Oil & Refining Co.	25	61½	62⅝	68⅛	52	99	42½	43¾	36
Illinois Pipe Line	100	133½	134½	144	131	154⅛	124	161	123
Imperial Oil, Ltd.	..	36⅝	36⅝	38⅜	32½	39¼	27¼	119	99
Indiana Pipe Line	50	60	59½	68	58	84	87½	100	66
International Pet. Co.	10	34⅝	35	35¼	28⅜	35⅜	22¼	34⅝	16⅜
National Transit Co.	12.50	*14½	*14	20⅜	14⅛	25½	16½	25⅞	20⅝
New York Transit	100	*32½	*35¼	51½	33¼	79	50	97	54½
Northern Pipe Line	100	*67½	*67½	80½	68	88	67½	107½	72
Ohio Oil Co.	25	60⅝	62	67⅝	55⅜	75¼	60	79½	53
Penn.-Mex. Fuel	25	*21	*21	24½	15	44	19	35⅝	27
Prairie Oil & Gas	25	51	51½	60¼	48	65½	45⅜	269	193
Prairie Pipe Line	100	125½	125⅜	127	122½	129⅜	105	111	100
Solar Refining Co.	100	212	220	212	184½	259	200	240	170
South Penn Oil	25	39½	39⅜	50	35	‡197	139	176	117
Southwest Pa. Line	100	*50½	*50½	56	47½	84	50	89	68
Southern Pipe Line	50	*23¼	*23½	74½	61½	103	63	100	80½
Standard of Indiana	25	64⅜	65	70½	61⅝	70¾	59½	69⅝	54¼
Standard of Kansas	25	22	22	36½	21	46	30¼	50½	32½
Standard of Kentucky	25	123½	*124	134⅝	108	137	114⅜	121⅞	101
Standard of Nebraska	100	49⅜	47½	†51½	†42	270	231	262	198
Standard of New York	25	33⅛	33⅜	47¼	30⅝	48⅝	40	48	37¾
Standard of Ohio, com.	100	*291	293	362	292½	369	338	337½	277
Swan & Finch, com.	25	*17½	*17½	21	18	27	12	28	20
Vacuum Oil	25	103⅜	103	109⅜	94¼	109½	80½	83½	50½
Miscellaneous									
Gulf Oil Corp. of Pa.	25	85⅜	85½	93⅜	82½	98¼	63½	67⅝	56
Tide Water Associated	..	24⅞	24½	27	21	..	..	..	..

*Bid, no sales. ‡Old stocks. †New stocks.

The Oil and Gas Journal's weekly average price of 20 representative petroleum stocks listed on the New York Stock Exchange was as follows:

Aug. 16	59.34	July 12	59.43	June 7	58.92
Aug. 9	59.35	July 2	60.38	May 28	59.81
Aug. 2	59.76	June 28	60.17	May 24	58.84
July 26	58.44	June 21	59.91	May 17	57.63
July 19	59.45	June 14	59.40	May 10	57.08

Shell Union Oil Corp. and subsidiaries for quarter ended June 30, 1926, report profit of $11,744,485 after depreciation, depletion, etc., but before Federal taxes, equivalent after preferred dividends, to $1.14 a share earned on 10,000,000 no par common shares. This compares with $5,495,891 or 52 cents a share in preceding quarter and $7,049,803 or 68 cents a share in second quarter of 1925.

Profit for first six months of 1926 totaled $17,240,376 before Federal taxes, equal to $1.67 a share, against $11,555,008 or $1.10 a share in first half of previous year.

Consolidated income account for quarter ended June 30, 1926, compares as follows:

	1926	1925
Total inc.	$19,055,776	$13,771,621
Depr., depl., etc.	7,311,291	6,721,818
*Profit	$11,744,485	$ 7,049,803
Pfd. dividends	254,380	247,194
Common dividends	3,500,000	3,500,000
Surplus	$ 7,990,105	$ 3,302,609
Six months ended June 30, 1926:	1926	1925
Total inc.	$30,614,968	$23,918,271
Dep., depl., etc.	13,374,592	12,363,263
*Profit	$17,240,376	$11,555,008
Preferred dividends	514,861	510,675
Common dividends	7,000,000	7,000,000
Surplus	$ 9,725,515	$ 4,044,333

*Before Federal taxes.

Tide Water Oil

The report of Tide Water Oil Co., and subsidiaries for six months ended June 30, 1926, shows net income of $2,731,518 after depreciation, depletion, Federal taxes, etc., equivalent after dividends on 5 per cent preferred stock, to $1.01 a share earned on 2,138,373 no par shares of common stock. This compares with $3,867,245, or $7.66 a share (par $100) on 504,429 shares of common, outstanding in first half of 1925.

Consolidated income account for six months ended June 30, 1926, compares as follows:

	1926	1925
Gross sales	$39,493,074	$37,497,219
Oper. inc.	5,445,181	7,059,986
Other inc.	564,087	186,461
Total inc.	$ 6,009,268	$ 7,246,447
Depr. and depl.	2,894,983	2,849,391
Balance	$ 3,114,285	$ 4,397,056
Outside stockholders prop of loss	*22,090	*19,822
Federal tax est.	404,857	549,633
Net for stock	$ 2,731,518	$ 3,867,245
Pfd. dividends	557,515	.....
Common dividends	2,160,798	1,008,858
Surplus	$ 13,205	$ 2,858,387
P. & L. surplus	24,226,881	23,438,369

*Credit.

Consolidated balance sheet of Tide Water Oil Co. and subsidiaries as of June 30, 1926, compares as follows:

Assets

	1926	1925
†Prop. acct.	$ 62,961,515	$59,996,596
Other inv.	1,433,631	1,011,675
Inv. affil. cos.	7,050,872	6,316,287
Invest. res.	2,286,681	1,079,079
Cash	2,363,378	3,138,447
Securities	5,472,644	.....
Accts. & notes rec.	7,001,854	6,291,087
Crude oil and prod.	20,507,012	17,748,998
Mat. & Sup.	1,932,176	1,650,678
Due from affil. def. items	2,238,101	1,236,574
Total	$113,346,239	$98,543,466

Liabilities

Pfd. stock	$20,706,100	.....
Common stock	‡54,964,200	50,442,900
Bonds	.....	12,000,000
Stk. subsid.	.....	32,000
Due sub. cos.	138,319	114,897
Accts. payable	3,494,759	4,738,515
Pur. money ob.	1,584,203	750,186
Accrued tax	575,146	328,307
Emp. stk. sub.	630,753	.....
Def. liab.	1,815,328	1,577,819
Cont. res.	4,744,089	4,462,922
Tax. res.	404,857	549,632
Min. int. of subs.	61,604	107,919
Surp. T. W. O.	24,226,881	23,438,369
Total	$113,346,239	$98,543,466

†After depreciation and depletion. *Deficit. ‡Represented by 2,138,373 no par shares.

The Day of Cost Facts

Business is good in practically all lines at present—business is good, but margins of profit have narrowed. Competition is keen.

A manufacturer has little to fear from blind competition—the competitor who guesses at his costs. He is short lived. The *informed* competitor—he who knows his costs is the one to look out for. He knows exactly what can or cannot be done on the price question, and these days one *needs* to *know*.

Cost Facts have come into their own. This is *their* day.

American Appraisal Service is an essential tool for ascertaining cost facts—a *precision* tool, a part of the cost machine that tells when to take business and when to let the other fellow have it.

Several of our booklets are devoted to discussions of cost facts. Ask for those you'd like to have. No. 864-U: "Property Records—Their Effect on Profit and Loss." No. 889-U: "What Is Your Plant Worth?" No. 890-U: "Appraisals and the Profit and Loss Statement." No. 934-U: "Appraisals and the Business Cycle." No. 930-U: "Appraisal—An Essential to Good Management."

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PUBLIC UTILITIES - INDUSTRIALS - REAL ESTATE PROPERTIES - NATURAL RESOURCES

A NATIONAL ORGANIZATION

ROCKY MOUNTAIN AREA

(Continued from Page 56)

strata lie too deep to be reached by the drill; however, the drillers on the Myers wildcat claim they reached the Cretaceous and the gas flow is coming from a sand in that period. Mr. Myers and associates are New York people and this well was started last summer. The gas was found at 2,100 feet.

In the LaBarge Field in Lincoln County, Wyoming, the Superior Oil & Gas Co., a local firm made up of Rock Springs business men, found a new producer in Section 3 26-113. The pay was found at 460 feet and the well is estimated at 8 bbls. LaBarge is still without a pipeline, although the Beneficial Oil Co., one of the main operating companies in that field, is shipping its production by truck to the railroad and then to Salt Lake City, Utah, for refining.

An effort is being made to buy several miles of 2-inch pipe and to utilize it as a pipeline from the field to a point on the nearest railroad and then establish a skimming plant which would turn out gasoline and fuel oils. In this way all the production of LaBarge could be handled with a minimum of expense. It is further proposed to lay this line on top of the ground as the lines were laid from Cat Creek Field at first.

At Cat Creek, the Mutual Oil Co. laid a 2-inch line and then laid a second line of the same size to move the oil to the railroad. Then an independent company laid a 6-inch line on top of the ground and both the companies gave service through these lines.

Runs From the Fields

Salt Creek	49,070
Teapot	1,300
Big Muddy	3,420
Grass Creek	3,180
Elk Basin	880
Greybull	20
Rock River	2,920
Notches	320
Rex Lake	570
Lance Creek	1,340
LaBarge	120
Poison Spider	1,180
Osage	250
Hamilton Dome	1,120
Mule Creek	Shut in
Lander	760
Byron	30
Pilot Butte	370
Lost Soldier	5,500
Ferris	60
Simpson Ridge	180
Cat Creek	2,760
Lake Basin	220
Sunburst	25,000
Florence	500
Moffat	3,475
Tow Creek	1,665
Fort Collins	1,355
Boulder	25
Rangeley	100
Hogback	740
Rattlesnake	740
Artesia	2,000
Total	113,570

Field Runs for July

Wyoming—	
Salt Creek	1,418,140
Teapot	35,780
Big Muddy	103,440
Grass Creek	98,120
Elk Basin	25,290
Greybull	620
Rock River	87,690
Notches	8,670
Rex Lake	8,300
Lance Creek	43,720
LaBarge	5,360
Poison Spider	34,350
Osage	10,850
Hamilton Dome	34,930
Lander	8,910
Byron	930
Pilot Butte	7,770
Lost Soldier	165,000
Ferris	2,370
Simpson Ridge	5,580
Montana—	
Cat Creek	86,400
Sunburst	684,000
Lake Basin	6,210
Colorado—	
Florence	13,210
Moffat	113,284
Ilex Dome	1,263
Fort Collins	152,318
Boulder	775
Tow Creek	18,115
Rangeley	3,100
New Mexico—	
Hogback	20,200
Rattlesnake	36,569
Artesia	93,000
Miscellaneous	3,000
Total	3,336,664

SOUTHWEST TEXAS

(Continued from Page 42)

81, which is swabbing and has a good well. Production figures are not available. No. 4, on the same block, has set and cemented casing, and No. 5 is drilling.

The Magnolia Petroleum Co. has a sand at 2,100-02 feet in its No. 12 "B" Martinez, in Survey 276, and a derrick up for No. 13 Martinez, and No. 14 Martinez, on the same survey.

Kitselman & St. Albans

In the Kitselman & St. Albans Pool, north of the Henne, Winch & Fariss Pool, and in Jim Hogg County, the Associated Oil Co.'s No. 1 Lopez, in Block 20 of Share 1 of the Los Animas grant is moving in machinery. Kitselman & St. Albans, who are the most extensive operators here, with several rigs in the field, completed their No. 4 on the Texas Pacific Coal & Oil Co. lease in the Holbien ranch making about 2,000,000 feet of gas at a depth of 2,075 feet and it is drilling deeper. The sand at 2,075 feet showed oil. Their No. 40 Holbien, in Block 30 of Section 12, dry and reported abandoned at 2,196 feet, has drilled deeper and is now at 2,929 feet and drilling. No. 44 Holbien, in Block 5 of Section 11, is drilling at 1,500 feet, and No. 45 has erected a derrick on Block 9 of Section 15.

Somerset Field

Witherspoon Oil Co.'s No. 2 Tuerpe is drilling at 260 feet. No. 1 is on the pump and made a small well. They are a little south of production in the west extension of the field. W. R. Hamilton's No. 12 Hughes was completed and is a 12-bbl. well, the smallest thus far on the Hughes lease in the western end of the field. No. 13, located 700 feet northeast of No. 12, is drilling in and should be a better well.

Luling Field—Caldwell County

The Golden West Oil Co. got a dry hole in its No. 2 Fields in the east end of the Luling Field in Caldwell County. It set casing in the chalk at 1,707 feet and got about a 2-bbl. well in the Buda but a dry hole in the Edwards. At 2,239 feet when about 10 feet into the Edwards it got black sulphur water.

OKLAHOMA FIELDS

(Continued from Page 53)

9e, is a rig. Olean Petroleum Co. has rig on ground for No. 1 Brush, NE NE NE, Section 36-15-7e. C. G. Tibbens' No. 2 Herrod, SE SE NW, Section 25-15-8e, is spudding. Roland Oil Co. has spudded No. 1 Allen, CEL NE SW, Section 6-15-10e.

Creek County Completions

Burlingame & Sharp's No. 8 Unallotted, NE SW NW, Section 13-19-8e, after 10-quart shot from Bartlesville sand at 2,371-2,400 feet, made 100 bbls. Gled Oil Co.'s No. 3 Ross, NE NW SW, Section 13-19-8e, made 100 bbls. after a 5-quart shot from sand at 2,876-81 feet. Gled Oil Co.'s No. 4 Ross, CEL SE SW, Section 13-19-8e, had sand at 2,351-80 feet, and after an 80-quart shot made 50 bbls. Selby Oil & Gas Co.'s No. 2 Barnett, C SE NW, Section 31-19-9e, shot with 50 quarts from sand at 3,085-3,108 feet and made 35 bbls. Holmes & Glidden's No. 1 Robinson, SW SE SW, Section 14-19-10e, drilled to 2,650 feet, encountering water. Plugged back to 2,370 feet and completed for 20 bbls. Tidal Oil Co.'s No. 6 Fife, NE NW, Section 22-17-7e, completed for 10 bbls. from sand at 2,852-59 feet. Barnsdall Oil Corp.'s No. 3 Mitchell, SE SE SW, Section 22-17-8e, dry and abandoned at 3,238 feet in lime. T. B. Slick has a dry hole in No. 2 Alex, NE NE SW, Section 27-17-8e, total depth 3,662 feet. G. M. Oil Co. has abandoned location for No. 1 Goodman, SE SE NW, Section 23-17-9e, on account of bad title. O. M. Irelan's No. 3 Baker, NE NW SW, Section 11-17-10e, is shut in for 3,500,000 feet of gas, total depth 1,750 feet. Wilcox & Whitten's No. 3 Unallotted, SW SE NW, Section 11-17-10e, had sand at 1,555-67 feet, shut in for 5,500,000 feet of gas. Brocker & Warren's No. 2 Dawson, SW NW SW, Section 24-17-10e, made 35 bbls. after a shot of 160 quarts from sand at 1,810-54 feet. Pioneer Petroleum Co.'s No. 7 Bucktrot, SW NW NE, Section 24-17-10e, had pay sand at 2,445-60 feet, and made 1,080 bbls. the first 24 hours. No. 8, CSL SW NE, pay sand at 2,446-56 feet and made 240 bbls. J. H. Wright's No. 12 Dawson, EL NE SW, Section 24-17-10e, made 50 bbls. from pay sand at 2,445-78 feet. J. H. Wright's No. 12 Tahkaney, CNL NW SE, Section 24-17-10e, had pay sand at 2,392-2,415 feet, total depth in sand, good for 120 bbls. Black Gold Oil Co.'s No. 1-A Roberts, NE SE NW, Section 5-16-8e, made 25 bbls. of 40 gravity oil after a shot of 80 quarts from sand at 2,330-58 feet. Shaffer Oil & Refining Co.'s No. 1 McIntosh, SW SW NW, Section 27-16-9e, is dry and abandoned at 2,965 feet. Consolidated Drilling Corp.'s No. 1-A Bigpound, SE SE SE, Section 31-15-8e, dry and abandoned at 3,269 feet.

Tulsa County Completions

McAllester & Milburn's No. 1-A Unallotted, SW SE NW, Section 4-18-13e, is dry and abandoned at 2,270 feet. Hazen and others have a dry hole in No. 1 Simon, NE SW SW, Section 11-18-13e, total depth 1,460 feet. Straughn and others' No. 1 Thatchery, SE SE NE, Section 18-18-14e, shut in for 6,000,000 feet of gas, total depth 1,432 feet. Pettitt & Dillard's No. 3 T. W. Perryman, CNL NE NW, Section 9-17-14e, is dry and abandoned at 1,565 feet.

Okmulgee County Completions

Thompson & Black's No. 4, CNL SW SW, Section 5-16-13e, made 75 bbls. after shot with 10 and 20 quarts from sand at 2,135-46 feet. Keener Oil & Gas Co.'s No. 1 Sharp, SE NW, Section 10-16-13e, shot with 60 quarts from sand at 1,659-90 feet, completed for 10 bbls. Shaffer Oil & Refining Co.'s No. 5 O. McCoy, NW SW NW, Section 18-16-14e, dry and abandoned at 1,538 feet. Shaffer Oil & Refining Co.'s No. 6 Carolina, SW SE SE, Section 17-15-11e, shot with 60 quarts from Wilcox sand at 2,950-80 feet, made 415 bbls. first 24 hours and 225 bbls. the second 24 hours. E. Coffman and Redbank Oil Co.'s No. 1 Hood, NW SW SW, Section 10-15-13e, is a dry hole in the Wilcox sand at 2,759-63 feet. Vincent and others' No. 1 Anderson, SW SE NE, Section 3-15-14e, completed for 25 bbls. from sand at 1,559-97 feet. Simons and Carter Oil Co.'s No. 2-A Grayson, SW NE, Section 23-14-11e, shut in for 3,000,000 feet of gas in Taneha sand at 1,880-1,908. Sperry & Mills' No. 1-A, H. M. Lacey, NW SW SW, Section 7-14-13e, had sand at 2,150-56 feet, and made 50 bbls. J. Wallace has a dry hole in No. 3 Colbert, NE NW NE, Section 14-14-14e. Sheldon and Amerada Petroleum Corp.'s No. 1-A W. Joans, SE NE NW, Section 5-13-12e, dry and abandoned at 3,377 feet. G. C. Parker's No. 1 L. Hawkins, NW NE SE, Section 36-13-12e, dry and abandoned at 1,262 feet. McCullough Oil Co.'s No. 1-A Sanger, SE NW SW, Section 16-13-13e, dry and abandoned in the Wilcox sand 2,921-28 feet. Simms Oil Co.'s No. 11 L. Doyle, CNL NE SW, Section 15-13-14e, made 10 bbls. after a 60-quart shot from sand 1,740-62 feet.

Lincoln County Completions

Phillips Petroleum Co.'s No. 3 Hopewell, NW SW, Section 8-15-6e, dry and abandoned at 3,860 feet. (Was drilled as Dutcher sand test, but no sand was encountered.) Phillips Petroleum Co.'s No. 7 Patterson's SE SW NE, Section 10-14-5e, made 62 bbls. after a shot of 30 quarts from sand at 3,391-3,412 feet. Douglas Oil Co. has abandoned No. 1 Ewing, NE NW NW, Section 7-13-3e, because of bad fishing job.

Muskogee County Completions

Crandall & Murta have a dry hole at a depth of 1,772 feet in No. 1 Simons, NE NE NE, Section 9-15-15e. In Section 18-15-15e, Wirick & King's No. 1-A Ware, SE SE NE, is dry and abandoned at 1,816 feet. M. E. Johnson's No. 1 Howdershell, SW SE SW, Section 19-14-19e, dry and abandoned at 1813 feet. Had no sands.

Canadian County Completions

Ponca Oil & Gas Co.'s No. 1 Dawson, CNL NE NE, Section 34-13-9w, dry and abandoned at 3,700 feet. Wrightsman and others' No. 1 First National Bank of El Reno, SE SE SE, Section 2-13-8w, dry and abandoned at 540 feet.

Okfuskee County Completions

The Texas Company's No. 1 S. Harjoche, NW NW SW, Section 27-12-10e, is dry and abandoned at 3,808 feet. Josey Oil Co.'s No. 1 J. Hulsey, SE SE NE, Section 32-12-11e, completed for 300 bbls. in Wilcox sand at 3,625-50 feet. Same company's No. 3-A (Twin No. 3), NE SE NE, Section 32-12-11e, abandoned. Lost hole on account of fishing job. Josey Oil Co.'s No. 3 McCoy, SE NW SW, Section 33-12-11e, had Wilcox sand at 3635-93 feet and made 300 bbls.

Seminole County New Work

Prairie has rig on ground for No. 2 Kincaid, NW SE SE, Section 33-10-6e, and for No. 3, SE SE SE. Seawright and others' No. 4 Grayson, SW NE SE, Section 33-10-6e, is a location. Wrightsman's No. 1 D. Harjo, SW SW SW, Section 35-10-6e, location. Carter Oil Co.'s No. 1 Noko, NE NW NW, Section 31-10-7e, location. Sinclair Oil & Gas Co.'s No. 2 D. Hill, CNL NE NE, Section 9-10-8e, is rigging up to drill deeper, Gypsy Oil Co.'s No. 1 J. King, (Cromwell sand test), C SW SE SE, Section 11-10-8e, spudding. Carter Oil Co. is building rig for No. 1 G. W. Frazier, NW NW NW, Section 3-9-6e. Same company is moving in tools for No. 1 J. Davis, NE NE NE, Section 4-9-6e. Also they are building rig for No. 1 W. E. Grisso, SE SE SW, Section 23-9-6e. In same section, Tidal-Osage Oil Co.'s No. 1 J. Hull, NE NW SE, is a location. In Section 24-9-6e, Carter is rigging up No. 2 Joe Carter, SE SW SW. Indian Territory Illuminating Oil Co.'s No. 6 James, C SW SW SE, Section 24-9-6e, is a rig and No. 7, C NW SW SE. Drilling at 350 feet. Mid-Continent Petroleum Corp.'s No. 3 Tayeche, C SW SE SW, Section 24-9-6e, is a rig and rigging up No. 4, C SE SE SW. Prairie Oil & Gas Co.'s No. 1 Bloss, NE NW NW, Section 25-9-6e, is building rig. Tidal-Osage Oil Co.'s No. 1 M. Jones, C NE NE NW, Section 25-9-6e, is a rig, and has rig on ground for No. 3 NW NE NW. Gypsy Oil Co. is rigging up rotary for No. 1 Fixico, C SW NW NE, Section 26-9-6e, also for No. 2, C SE NW NE. No. 3, NL NE NW, is a location. Same company's No. 1 Lukes, NE SW NW, Section 26-9-6e, is building rig. Independent and Garland are rigging up No. 2 Fixico, C SE SW NE, Section 26-9-6e, also No. 3, C NE SW NE, and No. 4, C NW SW NE. Independent and Interocean have rig on ground for No. 1 Parks, NW SW SE, and No. 2, NE SW SE, Section 26-9-6e. Indian Territory Illuminating Oil Co. has spudded No. 1 Bowlegs, CWL NW SW, and No. 2, C NE NW SE. Has rig on ground for No. 3, SW NW SE. All in Section 26-9-6e. Pure Oil Co. is rigging up No. 1 O. D. Strothers, C NE NE SW, has rig on ground for No. 2, NE NE SW, digging cellar for No. 3, SE NE SW, and No. 5, NW NE SW, is a location, all in Section 26-9-6e. Also has rig on ground for No. 1 Strothers "B" NE NW SW. Tidal-Osage is rigging up No. 1 Rockwell, C SE SE NW, No. 2, C NE SE NW; No. 3, C SE NE NW, and digging cellar for No. 4, SW SE NW, in Section 26-9-6e. Amerada Petroleum Corp.'s No. 1 Cudjo, C NE NW SW, Section 34-9-6e, drilling at 2,040 feet. Barnsdall Oil Corp. has rig on ground for No. 1 Shaw, NE NE NE, Section 34-9-6e. Carter is building rig for No. 1 O. D. Strother, NE NE SE, Section 34-9-6e. Superior Oil Co. has rig on ground for No. 1 Grisco, NE SW NE, Section 35-9-6e. Magnolia Petroleum Co.'s No. 1 Knight, C NE SE NW, Section 28-8-7e, is a rig. In Section 31-8-8e, Producers & Refiners has rig on the ground for No. 10 (twin to No. 2) Amos, NW NE SE, and No. 11 (twin to No. 4) SW NE SE. Ramsey Oil Co. is rigging up to drill deeper No. 5 Salinda, SE NW SE, Section 31-8-8e, and No. 6 (twin to No. 3), CEL NE SW, and No. 7 (1,000 feet east of No. 4), CSL SW SE, are both rigs. Indian Territory Illuminating Oil Co.'s No. 1 Dickerson, NW cor. Section 1-7-7e, is spudding.

Seminloe County Completions

Prairie Oil & Gas Co.'s No. 1 Kincaid, (formerly reported as H. Grayson farm), C NE SE SE, Section 33-10-6e, had pay sand at 4,114-24 feet, and made 1,610 bbls. Gypsy Oil Co.'s No. 1 D. Davis, C NW SE NW, Section 14-8-7e, plugged and abandoned at 3,525 feet. Magnolia Petroleum Co.'s No. 1 Walker, C NW SW NW, Section 23-8-7e, H. F. Water, 3,306-25 feet; set 6⅝-inch casing at

3,585 feet; sand at 3,049-58 feet, 28 bbls. oil. Plugged back from 4,082 feet, total depth, where they had hole full of water.

Hughes County Completions

McCullough & McMahon's No. 1 Ferguson, NE NW SW, Section 5-7-8e, had sand at 4,218-30 feet, and made 598 bbls. Shaffer Oil & Refining Co.'s No. 1 Ferguson, NE SW SW, Section 5-7-8e, plugged and abandoned at 1,200 feet. Dixie Oil Co.'s No. 5 Knight, NW SE SW, completed for 813 bbls. from sand at 4,136-51 feet.

Grady County New Work

Carter Oil Co.'s No. 2 Mar-Horton, NE NE SW, Section 8-3-5w, is a rig. Same company is rigging up No. 4 Irvin Polson, NW SE SW, Section 27-3-5w, and No. 2 White Eagle, SE NW SW, drilling at 798 feet. Marland and Joe Ray's No. 1 Woods, NE SE NE, Section 17-3-5w, rig. Briscoe & Hall's No. 1, SE NW SE, Section 34-3-5w, rigging up rotary and No. 2, NW NW SE, location. In Section 34-3-5w, Carter Oil Co.'s No. 1 Eva Nations, NW SE SE, is a rig and building rig for No. 2 L. F. Wham, SW NW NE. Magnolia Petroleum Corp.'s No. 2 E. H. Mitchell, NW NE NW, Section 34-3-5w, a rig. Also in same section, Tood and others' No. 2 Nations, SE SW SE, is a rig.

Grady County Completions

Magnolia Petroleum Corp.'s No. 1 Dryden C NW SE, Section 35-5-8w, shut in for 43,000,000 feet of gas, 850 pounds rock pressure, total depth 2,281 feet. Carter Oil Co.'s No. 1 L. F. Wham, NW NW NE, Section 34-3-5w, completed for 57½ bbls. oil from sand at 1,474-80 feet.

Garvin County Completions

Cosden Co.'s No. 1 Fleming, CEL NE SW, Section 32-3-3e, dry and abandoned at 2,000 feet.

Ramsey Petroleum Co.'s No. 1 Unknown, C NE Section 27-5-5e, spudding.

Stephens County Completions

Carter Oil Co.'s No. 3 F. R. Isherwood, SE SW SW, Section 12-2-5w, plugged and skidding rig for new hole.

Creek County Completions

Consolidated Drilling Corp.'s No. 1-A Bigpond, SE SE SE, Section 31-15-8e, dry and abandoned at 3,269 feet. Gypsy Oil Co.'s No. 9 E. Ponds, SE SE SE, Section 2-14-8e, shot with 60 quarts from sand at 2,463-93 feet, 115 bbls. of 42 gravity oil first 24 hours, total depth 2,496 feet. C. G. Tibbens' No. 11 I. Johnson, CWL NW SE, Section 26-14-8e, made 30 bbls. after an 80-quart shot from sand at 2,413-56 feet. C. F. Noble's No. 1 F. McNevens, SW SE SE, Section 17-14-10e, dry and abandoned in the Wilcox sand at 3,465-70 feet. Producers & Refiners Corp.'s No. 3 E. Harjo, NW NE SE, Section 18-14-10e, completed for 62 bbls. of 30 gravity oil after a 50-quart shot from sand at 2,886-2,905 feet.

MANY INQUIRIES ON USE OF SODA ASH

(Continued from Page 31)

of soda ash in a solution of 60 pounds of soda ash to a barrel of water in each of two wells 200 feet apart, taking about a month to get it in; starting early in August, 1925, and finishing early in September. As soon as it was all in we put a hydrostatic pressure behind it and watched an old well that was 82 feet from one of the wells, after cleaning out the old well and getting it ready for business.

"You and I had agreed that it would be about January 1 before we would get any results and this was a pretty close guess as to time.

"A short time after this the well started to pick up and is now doing six barrels of oil a day and some water. I do not know that it is at its peak production yet, nor can I say that the hydrostatic pressure would not account for the present increase. The production should have been straight oil for 14 months using the most favorable pressure."

Louisiana's Opinion

In reply to a letter from Shreveport, La., written by a correspondent interested in the Bradford Field, September 18, 1925, the following letter was sent:

"Some operators in the Bradford district are putting in each well three 50-bbl. doses of saturated soda solution about a week apart, then drive with fresh water. One such dose is sufficient to form a driving front at least a foot thick under Bradford conditions but I doubt whether using more will show any advantage under ordinary conditions. However, with inexpensive alkali available, deep wells far apart and heavy oils, liberal doses might well be advantageous.

"There might be some advantage in introducing the solutions at temperature of from 160 to 200 degrees Fahrenheit in the case of heavy oils. Such a procedure could do no harm unless the oil were saturated with light gases. It is well worth a trial but no noticeable difference is to be anticipated."

When these experiments were in process of being initiated or on September 8, 1925, the following brief advice was given in response to a communication:

"As I have many times stated and restated the soda process of oil recovery is applicable everywhere in the Bradford district without any possibility of undesirable results."

In reply to a letter written from Wellsville, N. Y., the following answer was sent:

"In order to determine the porosity and effective pore diameter of the oil sand in question, it will be necessary to have two or more specimens at least an inch in diameter and half an inch thick. From churn drill chips it is impossible to give more than a rough estimate."

North Texas Operator Advised

Replying to a letter from Wichita Falls, Tex., the correspondent was advised as follows:

"Since you have no water or gas in your wells and your crude is of high gravity, conditions appear quite favorable for driving with soda solution. Procedure is a matter of engineering adapted to your particular layout of wells and the availability of water and supplies.

"It would be well to try soda in three or four wells, preferably in a row, centrally located and not over 200 to 300 feet apart, pumping oil from wells on either side not over 300 or 400 feet away from the row of driving wells where the soda is put in. One hundred to 300 bbls. of soda solution (40 to 60 pounds per barrel) should be put in each of the driving wells at the rate of not over 20 bbls. every two or three days. About a month after the first soda was put in start putting in 50 to 100 bbls. per day per well of plain water after the soda solution. Within two or three months oil should appear in the neighboring pumping wells."

Patenting the Process

From Casper, Wyo., came an inquiry in respect to patent application that has been registered at the United States Patent Office and that received the following answer:

"It is the purpose of the Geological Survey to make recovery methods equally available to all. If my patent application on the use of alkaline solutions is granted it is planned to charge only a nominal royalty, just sufficient to make binding a contract that will protect producers from exploitation by outsiders. No patent hearings have yet been held.

"Prior dates of conception and application are shown by several parties familiar with the use of soda in connection with ore flotation. We expect to prove prior reduction to practice for use in oil recovery. There is no reason why you should not proceed at once with experimental work as many others have done. Field technique has got to be developed and this will be different for each field."

Successful Laboratory Use

A further reference to this application for a patent with a little historical matter referring to the initiation of these experiments was given as follows:

"The first successful use of soda solution in driving petroleum from sand in this laboratory (and I believe anywhere) was during the latter part of May, 1925. The experiment was completely successful in driving all the oil from the sand. Other experiments made at this time showed that sodium carbonate (either as soda ash or as washing soda) was the only substance that was at once effective, easy to use, inexpensive, without deleterious effect and did not use up within a 200-foot drive.

"A patent application covering the process was filed on June 10, 1925, the chief purpose of which was to protect producers from extortion by outsiders. The press notice describing the process was released July 2, 1925. The following week was spent in Bradford giving talks to and holding conferences with the operators, thus launching the process. W. C. Purple, I believe, was the first to start a full soda field test by putting a full dose in some wells during August. Details and results may be obtained from him, Paul Torry or H. M. Ryder at Bradford. A tentative set of instructions applicable to the Bradford Field is in the hands of each of these men.

"The Government has no general authority nor plan for administering patents. The survey is endeavoring to work out a plan by which such matters may be equitably handled. The plan is to charge a nominal royalty just sufficient to make a contract binding, in order to protect the producers, the proceeds, if any, to be used for petroleum research, probably largely field research (test cores, etc.), under the control of the producers' associations.

"The patent application has not yet been acted upon. Interferences have been declared and are to be heard within the next few months. These are based on prior dates of conception due to the use of soda solution in the flotation of crushed lead, zinc and copper ores. No difficulty is anticipated in showing prior reduction to practice in petroleum driving.

"It is quite true that anyone is free to use the process. Two points are insisted upon: (1) that the process be equally available to all and (2) that no burden be imposed upon anyone. If royalties are ever called for they must therefore be but nominal and are likely to be called for by the various producers' associations for experimental work."

Keen Competition in Gasoline Sales On Western Coast

LOS ANGELES, Calif., Aug. 13.—Domestic gasoline consumption on the West Coast is very satisfactory. Gasoline moving in the export trade also continues to hold up quite well. During the first seven months of this year over 3,000,000 bbls. of gasoline left Los Angeles harbor for the Atlantic Seaboard. During this period almost 17,700,000 bbls. of petroleum products were shipped to the East Coast. Of this amount, almost 50 per cent was refinable crude. In the point of bulk of petroleum exports from the harbor, July was next to the largest month in its history.

Competition in the Los Angeles area has been and is so extremely keen that the larger companies are taking steps to compete on equal terms with the so-called bootlegger. It is reported that more of the larger marketing companies are now selling a poorer grade of gasoline at the same price to the independent service station operators than the bootlegger has been asking in the past. During the past week one of the leading marketers reduced the price of its second grade gasoline below that of the majority of the cut-rate gasolines, thereby forcing the small refiners to cut their prices to meet the situation. It is believed that this is one of the first steps to be taken in a new campaign with the ultimate goal of eliminating the bootlegger from the Los Angeles retail market.

Natural gasoline continues to be consumed in large volumes. While production, due to new plants being built in the Ventura Avenue Field is on the increase, consumption is also greater and the market remains firm. Demand for this commodity is not expected to improve to any extent until the cool weather sets in.

Lubricating oils are moving in good volume along with motor gasoline. The price situation in and around Los Angeles, however, continues very unsatisfactory. This is the result of the extreme competition for sales in this area. Small refiners and some other larger companies also are putting out inferior oils at extremely low prices. This has increased the spread on lubricating oils and while these oils are moving in good volume, prices are unsteady and the market is soft.

Gasolines Weak Other Products Strong in Texas

WICHITA FALLS, Tex., Aug. 16.—Gasoline proved the black sheep in North Texas refined market the past week. All grades of this product were substantially weaker than a week ago, a contrast to the strength of kerosene and all heavier end products.

Kerosenes, fuel oil, gas oil and distillates were held at a premium with little material of any of these products available. Kerosene was quoted at 8½ cents but the heavy demand of last week has limited the supply even at that price.

Fuel oil continued very stiff as recent purchases by the City of Denver apparently has removed all of this material from the market. Additional strength is instilled in the fuel situation as the ginning season approaches. A bumper cotton crop is predicted and if gins are forced to run at capacity there will be a bigger demand for North Texas fuel than at any time in recent years. Fuel oil was quoted Monday from $1.50 up but sellers were few.

Gas oil and distillates also were in steady demand, especially material for cracking stock. Overhead straw gas oil easily brought 4½ cents, practically in line with Group 3 markets, while distillates also were quoted at 5 to 5¼ cents with little available.

The weakness of gasolines was due to the continued slackening of demand with all orders of a routine nature. Higher gravity gasolines were doubly hit by a reduction of a half cent in export posting on contracts by the Standard Oil Co. of New Jersey. This reduction left the lighter end gasolines practically up in the air.

The new net posting for North Texas refiners for the 64-66 375 gasoline is 11.15 cents. With this price some offers as low as 11⅜ cents for spot delivery were heard but with the situation so uncertain this offer failed to attract interest.

The low offers on higher gravities also was a very disturbing factor in the heavier end gasoline, particularly the U. S. Motor (58-60 437) grade. Reports of some open quotations under 10¾ cents were heard although sales at these quotations were unverified. However, the gasoline market was inactive at any price.

Natural gasolines, however, improved with substantial increases in inquiries. Market prices actually advanced approximately a quarter cent. One buyer was forced to pay as high as 9 cents for a Double B product. This order was an extra rush shipment but the price paid showed the trend. B grades were quoted from 8¾ to 9 cents, with C at 8½ to 8¾ cents and the A grades at 9 to 9¼ cents.

MOODY OPTIMISTIC REGARDING PRICES

"The situation in the petroleum industry is sound," declared Nelson K. Moody of Independence, Kans., president of the Prairie Oil & Gas Co., who passed through Chicago Monday. He continued: "I look for little change in prices of crude oil for the present, and I believe the industry in general will be able to finish out the year without much, if any change, in fairly satisfactory conditions now obtaining.

"A little too much crude is being produced over the country, but I look for nothing to happen which would menace the underlying stability of the industry in the near future."

INDUSTRY IN SOUND CONDITION, SAYS DAVIS

(Continued from Page 38)

line consumption in the last six months of each year is usually about 55 per cent of the total for the year. The average for the five years from 1921 to 1925 is 55.1 per cent. The lowest being 54 per cent and the highest 56 per cent. If this should hold true in 1926, the increase in gasoline consumption in the last half of the year would be 23.8 per cent over the same period of 1925 and the demand for domestic crude would be 2,355,000 bbls. daily.

Economic Position Sound

It thus appears that the oil industry is in a sound economic condition. Whether it will remain there will depend upon the good business judgment and intelligent action of the producing and refining branches of the industry. There is no overproduction of crude but an intensive drilling campaign is in progress and producers should conduct themselves with caution and restraint lest they destroy the present favorable situation.

Refiners since the beginning of this year have, as shown by the statistics above, kept their activities within reasonable bounds and the situation with regard to refined products shows a marked improvement over previous years. If these two branches of the industry will exercise proper caution and self restraint there is no reason why the industry should not finish the year in a well balanced condition.

INCREASED WITHDRAWAL OF STOCKS PREDICTED

(Continued from Page 37)

refineries described above are operating at a profit and should gasoline prices be raised to meet the refining condition of the industry as a whole the view is held that it might lay the industry open to further investigation. The Federal Trade Commission is now investigating gasoline price in response to a Senate order.

Mr. Parmelee points out that cracked gasoline production for the first six months of 1926 is at the rate of 81,700,000 bbls. per year, an increase of nearly 20 per cent over the 1925 production. He believes that the predictions of 85,000,000 bbls. of cracked gasoline for this year will not be exceeded.

No considerable increase in net cracking capacity is expected during the balance of the year. This is because further new installations are doing no more than offsetting the elimination of obsolete equipment. Mr. Parmelee's analysis follows:

Mr. Parmelee's Anaylsis

"New crudes produced and imported aggregated during the first six months of 1926, 391,825,000 bbls. There were exported 7,573,000 bbls.; 371,701,000 bbls. were run to stills and there was a net decrease in storage of 13,884,000 bbls. The change in storage included an increase of 12,486,000 bbls. of heavy domestic and foreign crude and a decrease of 26,370,000 bbls. in light crude. During June, 2,300,000 bbls. of light crude were drawn from storage.

"Crudes run to stills included 18,417,000 bbls. of domestic crude in excess of that run in the first half of 1925. Foreign crudes run amounted to 2,856,000 bbls. less than in 1925.

"Straight run gasoline produced was 88,747,000 bbls., a yield of 23.5 per cent of the crudes and net rerun stock run to stills. This was about 0.3 per cent more than the yield in 1925.

"Cracked gasoline production was at the rate of 81,700,000 bbls. per year, an increase of nearly 20 per cent over the 1925 production. It would now appear that the predictions of 85,000,000 bbls. of cracked gasoline for this year will be exceeded.

"The total yield of cracked and straight run gasoline was 34.3 per cent of the crudes and rerun stock run, as compared with 32.4 per cent for 1925.

"Natural gas gasoline production increased practically 25 per cent indicating a total production of 31,000,000 bbls. for 1926.

"Domestic demand for gasoline increased 14.9 per cent. On the basis of 45 per cent of the year's demand during the first six months, the 1926 domestic demand will be about 10,900,000,000 gallons, or 260,000,000 bbls.

"Export demand for gasoline was at at the rate of 45,000,000 bbls. for the year, an increase of nearly 30 per cent.

"Benzol production was at the rate of 2,100,000 bbls. per year, as compared with 1,860,000 for 1925.

"Gasoline importation was at the rate of 5,680,000 bbls. per year. In 1925 there were imported 7,626,000 bbls.

Indicated Demand

"The indicated domestic demand for motor fuel was 123,000,000 bbls. On the basis of 45 per cent for the first six months, this would indicate a total domestic demand of 273,500,000 bbls. for the year. Combining this with the indicated gasoline exports, the total requirement for the year will be about 318,500,000 bbls.

"Deducting 144,500,000 bbls. of motor fuel produced during the first six months, the supply for the remaining half year will have to be about 174,000,000 bbls. Allowing 3,000,000 bbls. imported gasoline and 1,000,000 bbls. of benzol, there is required 170,000,000 bbls. of refinery gasoline and motor gasoline from natural gasoline. Assuming 15,000,000 bbls. of natural gas gasoline available, the refineries will have to supply 155,000,000 bbls. of straight run and cracked gasoline.

"Cracked gasoline for the second half of the year will probably be in excess of that for the first half but will probably not exceed 45,000,000 bbls., leaving a requirement of 110,000,000 bbls. of straight run gasoline. On the basis of 23.5 per cent, this yield will require about 467,000,000 bbls. of refinery run, or 96,000,000 bbls. more crude than was run during the first six months.

"Considering the probable requirements for running heavy crudes and the available refinery equipment, it seems doubtful whether the crude run will be increased more than 30,000,000 bbls. of light crude which would produce about 7,000,000 bbls. more gasoline than was obtained during the first half of the year. This would leave a shortage to be drawn from stock of about 15,000,000 bbls. of gasoline.

"At the June, 1926, rate, the light oil production for the last six months will be about 306,000,000 bbls. or about 11,000,000 bbls. in excess of the first six months. On this basis it will be necessary to draw 45,000,000 bbls. from storage, if the refinery runs are increased to a total of 400,000,000 bbls. of all grades."

MARKETING OF OIL DESERVES ATTENTION

(Continued from Page 29)

ernment regulation should spur the industry to an economic solution of the problem, but the laws of trade themselves. For if the cost of gasoline at the filling station becomes loaded with charges that cannot be eliminated without the destruction of large masses of fixed capital, it will be difficult to compete, in the future, with chemical substitutes. A spread of a few cents a gallon may sometime spell the difference between prosperity and disaster. And if the added load is the result of short sighted methods, in the now early stage of the distributing business, the industry will have only itself to blame.

Difficulties Can Be Overcome

It may be urged, that the formation of combinations or holding companies for distribution may be against the present anti trust laws. If so, the legal talent of the industry is surely equal to formulating proper legislation. And if advertising methods have progressed to the point that they can create a demand based on trade names, it is surely equal to the task of laying the actual facts before the nation in such a way as to secure the co-operation both of Congress and the state legislatures.

The revenue from the sale of gasoline is becoming no inconsiderable factor in the annual budgets of many of the states. And it is a form of indirect or concealed taxation that they will not willingly see dry up.

But the working out of the problem cannot be based on a gentleman's agreement; the tacit understanding that one group of refineries shall keep out of territories belonging to other groups. It will have to be done openly, and with the sanction of law.

The whole tendency in production and refining methods is toward the elimination of waste. The next step is to apply to distribution the same amount of scientific study that has been given to production and refining.

The preliminary study is necessarily of the present laws, and necessary changes; then a program can be laid before the refiners and marketers, for the working out of practical methods of consolidation.

It may be objected that the small refiner or the wayside pump could make the working out of any comprehensive plan impossible. But the police power of the states, as indicated by the Supreme Court of the United States 15 years ago in the Oklahoma Bank Guaranty Cases; and the power of the Federal Government, as indicated in the lines of cases based on the doctrine of the Warehouse Cases would be equal to the occasion, if Governmental co-operation be secured.

NORTH CENTRAL TEXAS

(Continued from Page 40)

1,580-85 feet, made 7 bbls. Simms Oil Co.'s No. 4 Turbeville-A swabbed 295 bbls. and pumped 110 bbls. at 1,536-42 feet. Staley & Wynne and Humble Oil & Refining Co.'s No. 1 Wilson was dry and abandoned at 1,551 feet. Stewart Development Co.'s No. 8 Plowman and others, was temporarily abandoned. It had a rig up. The Texas Company's No. 1 W. R. Brown was dry and plugged at 1,652 feet, having salt water sand at 1,482-95 feet; No. 1 Turbeville-C swabbed 375 bbls. and pumped 175 bbls., 20 per cent water, at 1,532-38 feet; No. 4 L. F. Wilson-B made 28 bbls. at 886-903 feet. This was formerly the Crown Central Petroleum Co.'s well. No. 5, on this property, made 40 bbls. at 860-902 feet, broken sand. Gulf Production Co.'s No. 2 C. L. Abercrombie-A pumped 8 bbls. the first 13 hours at 1,383 feet, total depth; No. 1 H. L. Ward and others-C was dry and abandoned at 1,302 feet.

North Central Texas Completions

Shackelford County

Independent Oil & Gas Co.'s No. 1 Davis, (erroneously reported dry and abandoned) pumped 15 bbls. at 1,285-1,300 feet, plugged back from 1,573 feet. Jones' No. 1 Powers, dry and abandoned at 1,505 feet. Marland Oil Co.'s No. 1 Davis, shot with 20 quarts at 1,194-1,212 feet after plugging back from 1,511 feet, dry and abandoned. Roeser & Pendleton and Marland Oil Co.'s No. 16-A-84 Cook, sand at 1,351-63 feet, estimated at 100 bbls. Roeser & Pendleton and Marland Oil Co.'s No. 1-A-90 Cook, dry and abandoned at 2,079 feet. Roeser & Pendleton's No. 6-B-85, location abandoned; No. 10-B-85 total depth 1,363 feet, plugged back to 1,220 feet to put on pump; No. 13-B-85, total depth 1,307 feet, plugged back to 1,180 feet to put on pump.

Stephens County

Law and others' No. 1 Vick, dry and abandoned at 3,381 feet. Mid-Tex Oil Co.'s No. 6 Cunningham, total depth 3,180 feet, top lime, 3,154 feet, shot with 45 quarts at 3,160-78 feet, made 90 bbls. Atkinson & Sandefer's No. 1 Vick, total depth 3,616 feet, plugged back to 3,460 feet, shot with 450 quarts at 3,260-3,460 feet, no result, cleaning out. Humble Oil & Refining Co.'s No. 1 Stanford, total depth 3,389 feet, top of Caddo lime, 3,240 feet, shot with 80 quarts at 3,250-90 feet; no results, shut down for orders. Meyer & Kramer's No. 1 Glascock, 250,000 feet of gas at 1,680-1,700 feet, total depth 1,750 feet. Texas Pacific Coal & Oil Co.'s No. 66 Binney, sand at 1,876-91 feet, shot with 40 quarts, made 40 bbls.

Eastland County

Shinholt & Hoslip's No. 1 Fox, shot with 20 quarts at 1,550-70 feet, completed as gas well good for 700,000 feet of gas and show of oil. Adams and others' No. 1 Grove, shot with 240 quarts at 3,756-3,852 feet, total depth 3,858 feet, 150 bbls. Harmon & Conley's No. 1 Murrell, dry and abandoned at 1,495 feet. Gulf Production Co.'s No. 1 W. C. McFadden was dry and abandoned at 2,335 feet; No. 7 L. Kinnebrew was completed as a gas well at 3,243 feet, good for 2,000,000 feet of gas; No. 3 J. D. Parsons pumped 40 bbls. of oil and 10 bbls. of water at 1,580 feet; No. 4 pumped 30 bbls. of oil at 1,565 feet and had 1,250,000 feet of gas measured at the bradenhead, testing 3.5 gallons per thousand; No. 5 J. D. Parsons was abandoned as dry at 1,625 feet. It had a water sand at 1,621-25 feet and had a show of oil and water at 1,595-1,600 feet; No. 6 J. D. Parsons flowed 128 bbls. in the first 17 hours and 170 bbls. during the next 24 hours at 1,543-45 feet. This is the best well in the pool, the oil testing 41.5 degrees gravity. A location has been made for No. 7 Parsons, 150 feet south and west of NE cor. of the Gulf's 120-acre lease in Section 54, League 3 and 4, McLennan County school land.

Erath County

Davisson and others' No. 1 Koonsman, dry and abandoned at 3,610 feet.

Wilbarger County

Bridwell & Heydrick's No. 1 Waggoner, Section 42, M. E. P. & P. Survey, was dry and abandoned at 2,525 feet. Humble Oil & Refining Co.'s No. 5 Waggoner I, Section 47, Block 4, made 10 bbls. at 1,888-98 feet; Milham Corp.'s No. 8 Waggoner L, Section 42, made 116 bbls. at 1,873-83 feet; No. 9 was swabbing 162 bbls. at 1,894-1,910 feet, total depth 1,918 feet.

Clay County

Western Oil Corp.'s No. 1 J. W. Culbertson had broken sand at 1,658-1,713 feet and was plugged back to 1,659 feet where it made 45 bbls. of oil and approximately 15 bbls. of salt water. W. J. Green Oil Corp. and others' No. 1 Bunting was dry and plugged at 1,012 feet. The hole was cemented and it may be deepened later. Larkin & White's No. 1 Edrington estate was a failure at 2,000 feet.

Cooke County

Hoosier and others' No. 1 J. A. Dennis made 80 bbls. at 1,272 feet and 1,288-92 feet. C. C. Lanier and others' No. 4 A. Hyman had oil sand at 1,231-40 feet and white sand with a showing of oil at 1,246-54 feet. It bailed about half a boiler of oil.

Montague County

Arco Oil Co.'s No. 1 N. J. Howard, 35 bbls. at 1,086-90 and 1,105-12 feet. Benton Woods and others' No. 1 Lemon, dry and abandoned at 1,126 feet. The Texas Company's No. 15 Gist A, had broken sand at 873-92 feet making 40 bbls.; No. 10 Oldham and others' made 210 bbls. at 1,042-82 feet; No. 2 Martin, 40 bbls. at 1,130-38 feet and broken sand at 1,153-55 feet. Texhoma Oil & Refining Co.'s No. 4 Rowland estate made 115 bbls. at 1,009-76 feet, broken sand, with total depth 1,076½ feet.

Callahan County

Bradstreet and others' No. 1 Sawyer, 500 feet fluid in hole at 1,723-37 feet. Brown & Co.'s No. 1 Long, 80 bbls. at 1,404-82 feet. Cranfill & Reynold's No. 1 Bond, 90 bbls. at 1,378-82 feet; No. 2 Henderson, 150 bbls. at 1,380-92 feet. French & Lewis' No. 1 Ellis, dry and abandoned at 1,656 feet. Prairie Oil & Gas Co.'s No. 2 Derrington, 175 bbls. at 1,398-1,415 feet.

Coleman County

Burke-Greis Oil Co.'s No. 4 Dibrell, dry and abandoned at 2,175 feet. Kirby Petroleum Co.'s No. 3 Dibrell, sand at 1,914-40 feet, shot with 40 quarts at 1,921-41 feet, made 10 bbls. Bartlett's No. 1 Campbell, total depth 2,300 feet, top Ranger 2,182 feet, shot with 50 quarts at 2,220-36 feet, 250,000 feet of gas. Neely and others' No. 1 Cox, dry and abandoned at 2,490 feet.

Brown County

Anderson & Shults' No. 1 Holt, shot with 60 quarts at 2,747-70 feet, dry and abandoned at 2,915 feet. Bowers' No. 1 Graham estate, dry and abandoned at 1,932 feet. Boysen & Ramsier's No. 1 Boysen, dry and abandoned at 2,426 feet.

Carter and others' No. 1 Stapp, dry and abandoned at 2,715 feet. J. S. Cosden's No. 1 East-Westerman, sand at 1,231-46 feet, total depth 1,247 feet, shot with 15 quarts, made 25 bbls. Douglas and others' No. 1-A Graham estate, dry and abandoned at 2,190 feet. Empire Gas & Fuel Co.'s No. 1 Smith, dry and abandoned at 2,520 feet. Evans and others' No. 1 Sears, dry and abandoned at 733 feet. Humble Oil & Refining Co.'s No. 3 Foster, dry and abandoned at 1,250 feet; No. 3-D E. P. & W. H. Kilgore, shot with 10 quarts at 1,190-1,200 feet, total depth 1,203 feet, made 10 bbls. Keough Brothers, shot with 120 quarts at 2,622-55 feet, dry and abandoned at 2,780 feet (250,000 feet of gas). McKenna's No. 3 Foster, 250 bbls. at 1,-152-80 feet; No. 9 Foster, dry and abandoned at 1,255 feet. Midwest Exploration Co.'s No. 10 Suttles, 20 bbls., shot with 20 quarts at 1,141-61 feet, total depth 1,162 feet. Moore and others' No. 1 Lehman, dry and abandoned at 2,265 feet. Murphy's No. 1 Eubanks, dry and abandoned at 1,218 feet. Prairie Oil & Gas Co.'s No. 2 Armstrong, dry and abandoned at 1,470 feet; No. 2 Trammel, 10 bbls. at 1,369-77 feet; No. 7 Wooldridge, 105 bbls. at 1,244-76 feet, total depth 1,278 feet. Roxana Petroleum Corp.'s No. 1 King, dry and abandoned at 1,502 feet. The Texas Company's No. 1 Hickman, 1,176-78 feet, 900 feet of oil in the hole, drilling in. West and H-Y Oil Co.'s No. 9 Newton, estimated at 30 bbls. from 1,203-23 feet, total depth 1,-225 feet. Williamson and others' No. 2 Keller, dry and abandoned at 1,197 feet; No. 3 Keller, 140 bbls. at 1,137-59 feet, total depth 1,160 feet.

West Texas Completions—Howard County

Deep Rock Oil & Refining Co.'s No. 1 W. T. Scott, dry and abandoned at 3,-605 feet. Lockhart & Carey's No. 1 Chalk, swabbed 60 bbls. of oil and 4 bbls. of water at 1,553-86 feet. Magnolia Petroleum Co.'s No. 1 Chalk made 88 bbls. at 1,570-83 feet and 1,599-1,606 feet. Owens & Sloan's No. 2 Chalk swabbed 40 bbls. at 1,565-1,607 feet. Transcontinental Oil Co.'s No. 1 Roberts was dry and abandoned at 3,730 feet.

Glasscock County

Case & Hoover's No. 1 W. H. Sparkman was dry and abandoned at 3,300 feet.

Reagan County

Big Lake Oil Co.'s No. 70 University swabbed 205 bbls. while drilling at 3,012 feet, top of pay 2,961 feet, top of lime 2,888 feet; No. 74 University had 1,500 feet of oil in the hole from pay topped at 2,835 feet and still drilling at 2,889 feet; No. 8-B University was dry in the upper pay and was shut down at 2,495 feet. Texon Oil & Land Co.'s No. 38 University, Group 1, was swabbing, top of lime at 2,785 feet, top of pay at 2,897 feet, total depth 2,920 feet; No. 4-A, Group 1, pumped 184 bbls. at 2,887-2,948 feet.

Reeves County

Humble Oil & Refining Co.'s No. 1 Kloh & Rumsey was dry and abandoned at 4,416 feet.

Upton County

Marland Oil Co.'s No. 8 Sanger was shot with 200 quarts at 2,181-2,220 feet, total depth 2,234 feet, and made 280 bbls.

PRODUCTION BY FIELDS FOR WEEK AUGUST 9, 1926

Electra

Atlantic Oil Production Co.	57
Empire Gas & Fuel Co.	705
Gulf Production Co.	961
Humble Oil & Refining Co.	120
Magnolia Petroleum Co.	3,451
Panhandle Refining Co.	45
Phillips Petroleum Co.	13
Prairie Oil & Gas Co.	115
Rio Bravo Oil Co.	568
The Texas Company	3,487
Texhoma Oil Refining Co.	1,246
Miscellaneous	5,500
Total	16,268

Burkburnett

Gulf Production Co.	427
Humble Oil & Refining Co.	415
Magnolia Petroleum Co.	2,710
Panhandle Refining Co.	200
Prairie Oil & Gas Co.	20
Simms Oil Co.	14
Sinclair Oil & Gas Co.	45
Skelly Oil Co.	175
The Sun Oil Co.	50
The Texas Company	367
Texhoma Oil & Refining Co.	533
Miscellaneous	7,330
Total	12,286

Iowa Park

Atlantic Oil Production Co.	59
Gulf Production Co.	116
Humble Oil & Refining Co.	131
Magnolia Petroleum Co.	320
Panhandle Refining Co.	40
Roxana Petroleum Corp.	5
Simms Oil Co.	84
The Texas Company	190
Texhoma Oil & Refining Co.	632
Miscellaneous	2,830

Wilbarger

Atlantic Oil Production Co.	57
Empire Gas & Fuel Co.	875
Gulf Production Co.	55
Humble Oil & Refining Co.	2,880
Phillips Petroleum Co.	6,505
Prairie Oil & Gas Co.	138
Roxana Petroleum Corp.	430
The Texas Company	27
Texhoma Oil & Refining Co.	89
Tidal Oil Co.	15
Miscellaneous	4,150
Total	15,221

Archer

Atlantic Oil Production Co.	225
Barnsdall Oil Co.	860
Cosden Co.	450
Empire Gas & Fuel Co.	565
Gulf Production Co.	2,500
Humble Oil & Refining Co.	1,276
Independent Oil & Gas Co.	10
Magnolia Petroleum Co.	1,585
Marland Oil Co.	606
Panhandle Refining Co.	130
Phillips Petroleum Co.	600
Prairie Oil & Gas Co.	1,925
Roxana Petroleum Corp.	320
Simms Oil Co.	755
Sun Oil Co.	275
The Texas Company	3,102
Texhoma Oil & Refining Co.	2,891
Tidal Oil Co.	22
Miscellaneous	12,385
Total	30,482

Young

Atlantic Oil Producing Co.	454
J. S. Cosden	230
Gulf Production Co.	211
Humble Oil & Refining Co.	255
Magnolia Petroleum Co.	115
Marland Oil Co.	2
Panhandle Refining Co.	140
Phillips Petroleum Co.	15
Prairie Oil & Gas Co.	8
Roxana Petroleum Co.	120
Simms Oil Co.	486
Sinclair Oil & Gas Co.	360
Sun Oil Co.	350
The Texas Company	379
Texhoma Oil & Refining Co.	341
Tidal Oil Co.	80
Miscellaneous	4,481
Total	8,027

Stephens

Arkansas Fuel Oil Co.	25
Empire Gas & Fuel Co.	25
Gulf Production Co.	1,089
Humble Oil & Refining Co.	615
Magnolia Petroleum Co.	325
Mid-Kansas Oil & Gas Co.	1,460
Phillips Petroleum Co.	360
Prairie Oil & Gas Co.	740
Republic Production Co.	135
Roxana Petroleum Corp.	40
Simms Oil Co.	40
Sinclair Oil & Gas Co.	70
Sun Oil Co.	155
The Texas Company	980
Texas Pacific Coal & Oil Co.	1,130
Miscellaneous	4,235
Total	11,424

Shackelford

Empire Gas & Fuel Co.	35
Humble Oil & Refining Co.	1,525
Magnolia Petroleum Co.	60
Phillips Petroleum Co.	555
Prairie Oil & Gas Co.	7
The Texas Company	165
Texhoma Oil & Refining Co.	70
Miscellaneous	9,145
Total	11,542

Ranger

Arkansas Fuel Oil Co.	5
Gulf Production Co.	475
Humble Oil & Refining Co.	50
Magnolia Petroleum Co.	545
Mid-Kansas Oil & Gas Co.	105
Panhandle Refining Co.	130
Phillips Petroleum Co.	15
Prairie Oil & Gas Co.	550
Republic Production Co.	40
Simms Oil Co.	20
Sinclair Oil & Gas Co.	275
The Texas Company	165
Texas Pacific Coal & Oil Co.	805
Transcontinental Oil Co.	30
Miscellaneous	2,390
Total	5,598

Eastland-Comanche

Empire Gas & Fuel Co.	5
Humble Oil & Refining Co.	85
Magnolia Petroleum Co.	585
Mid-Kansas Oil & Gas Co.	140
Phillips Petroleum Co.	40
Prairie Oil & Gas Co.	80
Sinclair Oil & Gas Co.	15
Skelly Oil Co.	125
The Texas Company	105
Transcontinental Oil Co.	20
Miscellaneous	675
Total	1,875

Brown

Cosden Co.	525
Humble Oil & Refining Co.	3,750
Phillips Petroleum Co.	175
Prairie Oil & Gas Co.	600
Simms Oil Co.	15
The Texas Company	415
Witherspoon Oil Co.	20
Miscellaneous	5,877
Total	11,377

Miscellaneous Pools

Reagan County	28,290
Clay County	556
Montague County	5,329
Jack County	200
Throckmorton County	455
Baylor County	130
Palo Pinto County	459
Coleman County	1,830
Scurry County	52
Mitchell County	3,572
Crockett County	990
Upton County	4,105
Total	45,968
Grand total	179,103

Callahan

Amerada Petroleum Corp.	75
Humble Oil & Refining Co.	3
Prairie Oil & Gas Co.	850
The Texas Company	135
Texas Pacific Coal & Oil Co.	25
Miscellaneous	3,540
Total	4,628

Panhandle

Carson County	4,651
Hutchinson County	79,937
Wheeler County	285
Gray County	3,930
Total	88,803
Grand total	268,520

TEXAS PANHANDLE

(Continued from Page 38)

Section 106, Block 5, was abandoned at 3,030 feet.

DAILY AVERAGE PRODUCTION OF AMARILLO DISTRICT WEEK ENDING AUGUST 14, 1926

Hutchinson County

Company—	Wells	Daily Avg.
Amerada Pet. Corp.-J. A. Whittenburg	1	65
Amerada Pet. Corp.-J. A. Whittenburg-B	2	105
Amerada Pet. Corp.-G. A. Whittenburg	1	30
American Refining Co.	1	105
Apex Oil Co.	2	150
Badger Oil Co.	1	110
R. C. Barnum	1	0
Canadian River Oil Co.	4	325
Canyon Oil & Gas Co.	3	4,050
Centerfield Oil Co.	1	0
Coble-Whittenburg	3	675
Currie Bros. & Phillips	1	2,150
Cockrell-McIlroy	2	1,200
Derby Oil Co.	2	390
Devonian Oil Co.	3	1,400
Dixon Creek Oil Co.	21	12,000
Double 5 Oil Co.	1	60
Douglas Oil Co. & Cline	1	15
E. P. Dunnigan et al	2	450
Echo Oil Co.	1	165
Empire Gas & Fuel Co.	3	650
Fly-Blackburn Oil Co.	1	220
Gates Oil Co.	4	285
Golding & Phillips	1	20
Gulf Production Co., Panhandle & Cline	16	2,965
Gulf Production Co.	11	4,145
Heywood and others	2	115
J. K. Hughes Development Co.	9	790
Holmes, Currie & McKnight	1	200
W. H. Holmes	1	190
J. H. Lennix	1	0
Lennix & Patterson	1	1,050
Lucky 10 Oil Co.	1	1,400
Marland Oil Co.	10	3,400
Midwest Exploration Co.	3	460
McMan Oil & Gas Co.	8	5,005
McIlroy & Herring	4	630
S. D. & W. W. McIlroy	3	1,005
McIlroy Bros. and others	3	300
J. H. Middleton	3	30
Murchison & Fain	1	500
Newby Oil Co.	1	40
New Domain Oil Co.	3	225
Phillips & Heywood	1	295
J. R. Phillips-Weatherly	1	25
Phillips Petroleum Co.	44	22,230
Praire Oil & Gas Co.	6	1,400
Relief Oil Co.	2	650
Riley & Holmes	1	50
Roxana Petroleum Corp.	6	1,875
Ryan Petroleum Corp.	2	220
Shamrock Petroleum Co.	1	225
Skelly Oil Co.	6	740
Skiatex Oil Co.	4	1,050
J. L. Smith	1	60
Smith-Bynum	2	210
Spring Creek Oil Co.	2	1,010
Summit Oil Co.	2	455
Sunny Jim Oil Co.	5	600
Sunburst Oil Co.	1	320
Travelers Oil Co.	2	500
Triangle Oil Co.	1	1,350
J. D. Ward (Snell)	1	100
J. D. Ward and others	1	0
Westex Oil Co.	4	3,250
White Eagle Oil & Refining Co.	6	1,750
J. O. Whittington	1	0
Total Hutchinson County	248	84,715
Average per well		341

Carson County

Amarillo Oil Co.	1	0
American Refining Co.	4	410
Gates Oil Corp.	1	10
Gulf Production Co.	12	590
Marland Oil Co.	10	4,400
W. W. Silk, et al.	2	65
Skelly Oil Co.	2	85
Sunny Jim Oil Co.	2	70
The Texas Company	9	170
Total Carson County	43	5,660
Average per well		132

Gray County

Empire Gas & Fuel Co.	1	15
Shamrock Petroleum Co.	2	1,200
Wilcox-Pampa Oil Co.	4	2,375
The Texas Company	1	5
Total Gray County	8	3,595
Average per well		449

Potter County

Amarillo Oil Co.	1	25

Wheeler County

Gibson Oil Corp.	2	170
Continental Oil Co.	1	75
Midwest Exploration Co.	3	20
Upham Gas Co.	1	0
Total Wheeler County	7	265
Average per well		38
Grand total Panhandle	307	94,260
Average per well		307
Average per well last week		311
Total Panhandle 4 weeks ago	215	61,225
Average per well 4 weeks ago		285

URANIA, LA., PRODUCTION IS SHOWN BY COMPANIES

By James H. Dameron

SHREVEPORT, La., Aug. 14.—The 13,600 bbls.' daily production in the Urania, Field, Louisiana's latest oil field, is divided among 56 operators with the small operators laying claim to the lion's share of the field's output.

Cheap drilling costs for the 1,500-foot production made the area truly a "poor man's paradise." Although several wells ranging in initial production from 1,000 to 5,000 bbls. of oil were brought in a few months ago none is producing anywhere near that figure now. Most of those wells are recording their daily average production with two figures.

Natural Gas & Fuel Corp. ranks in producing with 43 wells yielding 1,950 bbls. of oil daily. Louisiana Oil Refining Corp. follows with 29 wells making 1,685 bbls. daily. Leading the flock of small operators H. L. Hunt, an El Dorado, Ark., operator has 19 wells making 1,640 bbls. daily. The six major companies operating in Urania have a combined daily production of 4,545 bbls.

Company and Farm—	Wells	Prod.
Abercrombie & Co., King	7	1,080
Alex Oil Co., Urania	2	40
Arizola Petroleum Co., Tannehill	7	490
Atlantic Oil Prod. Co., Tullos	3	80
Ayers et al., Urania	2	70
Bailey et al, Holmes	1	70
Bailey, et al., Rendoe	1	off
Beckman & Freeman, Urania	3	310
Burckhartt, T. R., Smith	1	off
Cartlon & Thorpe, Kyle & Davis	1	65
Carter & Hurley, Price	1	65
Carter & Hurley, Sadie York	1	80
Clark, O. W., trustee, Bass	2	70
Clark, O. W., trustee, Harper	2	180
Clark, O. W., trustee, Miles	2	70
Clark, O. W., trustee, Russell, J. D.	2	110
Clark, O. W., trustee, Russell	3	110
Clark, O. W. trustee, K. Russell	2	70
Clark, O. W., trustee, Smith	1	10
Clark, O. W., trustee, Tullos	4	60
Cook Drilling Co., Russell	2	80
Cox et al., fee	1	off
Dixie Oil Co., Urania	4	350
Explorers Oil Corp., Gaharan	2	30
Explorers Oil Corp., King	2	120
Explorers Oil Corp., Tullos	1	T.A.
Ferguson et al., Jarrell	1	off
Galloway et al, Pendarvis	3	55
Goodwin et al., Tullos	2	200
Graves, J. Q., King	1	off
Greenwall et al, Sayers	1	off
Greenwall et al, Tyler	1	40
Hamilton et al, Bennett	3	210
Hamilton et al, Wright	1	50
Hamilton & Musick, Volk	2	90
Hardtner Oil Co., Urania	5	470
Hope Oil Co., Urania	2	250
Hudson, A. E., Urania	2	100
H. L. Hunt, Griswold	1	50
H. L. Hunt, State	3	140
H. L. Hunt, Tullos heirs	14	1,400
H. L. Hunt, Urania	1	50
Hunt, McCurry & Zoder, Urania	4	360
Hunt, McCurry & Zoder, Winberry	2	170
Jones, H. M., Russell	2	off
Jones and Dobbs, Norrid	1	50
Jones & Womack, Perrin	1	30
Keene & Woolf, Urania	3	150
Keene & Woolf, Urania B. & F.	4	off
Keene & Woolf, Tisdale	1	20
Keisker, trustee, Russell	1	off
Kimbrough & Willis, fee	1	off
Louisiana Oil Refg. Corp., Bass	3	70
Louisiana Oil Refg. Corp., Harrold	1	30
Louisiana Oil Refg. Corp., Russell fee	1	60
Louisiana Oil Refg. Corp., Tremont	24	1,525
Love et al, Doughty	1	10
Love et al, Zimmerman	5	90
McGagay et al, Urania	1	30
McWilliams & Foster, Russell	2	70
Mitchell et al., Herbert	1	off
Mitchell et al., Tullos	1	30
Montague Oil Co., Zenoria	2	off
Natural Gas & Fuel, Cockerham	1	70
Natural Gas & Fuel Corp., Randall	1	20
National Gas & Fuel Corp., Russell, T.	2	135
Natural Gas & Fuel Corp., Russell	1	50
Natural Gas & Fuel Corp., Tullos, Frank	2	110
Natural Gas & Fuel Corp., Tullos, H.	7	500
Natural Gas & Fuel Corp., S. Tullos	6	115
Natural Gas & Fuel Corp., Urania	21	925
Natural Gas & Fuel Corp., Urania Pet. Co.	2	25
Nelson J. L., Bryan & Harvey	1	70
Ohio Oil Co., Urania	2	off
Ohio Oil Co., Urania	4	180
Ozley, L. E., fee	2	70
Roberts et al., Russell	6	325
Rowe et al, Urania	1	40
Sherman et al, Russell	3	off
Standard Drilling Co., Bass	1	40
Standard Drilling Co., Clinton	2	160
Standard Oil Co. of La., Urania	4	150
Sterling, Inc., Wimberly	1	off
Tullos Oil Co., Miles	2	175
Wetherbee, George W., Norrid	3	70
Wetherbee, George W. Tullos	1	40
Wetherbee, George W., Urania	1	10
Whittaker, O. F., King	5	300
Williams Dlg. Co., Herbert	6	330
Yeary & Bristol, Urania	2	120
Youngblood & Ertel, Price heirs	1	80
Zeigen et al, King	1	30
Zeigen, et al, Urania	3	60
Total daily average production	13	[illegible]
Number of wells producing		[illegible]
Average Production per well		52

ALL PRODUCTS STRONG EXCEPT GASOLINE

(Continued from Page 28)

was small, leaving his gasoline to be disposed of nearer home.

Oklahoma and Kansas refiners in the past have been able to sell considerable gasoline in Colorado and adjoining states but now the increased output of local plants in that area is taking care of most of the consumption and is spreading out more and more to the east.

Gulf Coast and California gasoline is becoming more readily available in the southeastern states eliminating a former very important outlet for some Mid-Continent refiners, particularly those in the Arkansas and north Louisiana district.

Export Reduction

A very disturbing factor in the Oklahoma gasoline situation, although felt more by north Texas refiners, was the reduction in export postings of higher gravity gasolines. The new net contract price for Oklahoma refiners now is 11.05 cents on the 64-66 375 product which makes a close margin between prices for these lighter end gasolines and lower gravity products.

With this low export contract price it is difficult to determine a true spot market price due to the few sales of the high gravity gasoline. Most refiners are quoting the 64-66 375 gasoline at 12 cents and above but material is available under this. The 60-62 400 gasoline is quoted at 11½ cents with little business.

The low quotations on these higher gravity gasolines naturally is weakening motor fuels as refiners find it difficult to maintain prices above 11 cents with other grades nearly at that figure. Several offers of 58-60 437 (U. S. Motor) gasoline were reported Monday and Tuesday as low as 10¾ cents and purchases could be made easily at 11 cents direct to the trade. However, there were comparatively few spot calls for any grade and the 450 endpoint material was particularly inactive.

Natural gasolines, contrary to refinery gasolines, showed considerable improvement during the week. There was a noticeable increase in demand which resulted in substantial price advances. Quotations Tuesday ranged from 8½ cents on Grade C to 9¼ cents on Grade A. One buyer in need of a rush car of Double B gasoline was forced to pay 9 cents. Little Grade A gasoline was available. Individual orders for natural gasoline were not large but an increasing number of buyers were in the field for small lots.

Kerosene and Distillates

Kerosene and distillates were practically unobtainable except on regular orders during the week. The purchase of approximately 100 cars of kerosene by the Standard Oil Co. of Indiana a week ago apparently removed all this material from the market for the time being while the steady demand for distillates was unabated. The 41-43 water white kerosene was quoted from 8½ to 9 cents but these prices were nominal as refiners making these quotations had no material for sale. The 42-44 water white kerosene was quoted at 9¼ to 9½ cents. The strength of kerosene was reflected in a 1-cent tankwagon advance by the Standard Oil Co. of Indiana.

A new premium has been put on distillates with the 38-40 straw product being held at 5¼ cents and the 36-38 grade at 5 cents. Refiners apparently were not anxious to sell at these prices or they had nothing to offer as few transactions were reported.

Fuel Oil and Gas Oil

Fuel oil and gas oil occupied the same position as kerosene and distillates. Even sources of low grades of fuel were limited with the result that nothing was available below $1.30. There were no higher gravity fuels on the market but quotations ranged from $1.35 to $1.40 on the 24-26 grade to $1.50 to $1.55 on the 28-30 material. Fuel oil prices now are practically on a par with the record set during April.

Gas oil for cracking stock was greatly in demand at 4½ cents with some quotations above that figure. Dark gas oil or cracked material could be obtained for 4¼ cents but the supply of this was limited.

Lubricants and Wax

There was no change in the lubricant and wax situation. All lubricating oils continued to experience a steady movement and quotations were strong. Bright stocks especially were scarce. Wax gave no indication of picking up as no inquiries were reported.

CRUDE OIL PRICES

(Continued from Page 151)

33° and above	2.10
El Dorado below 33°	2.00
33° to 34.9°	2.10
35° to 36.9°	2.20
37° and above	2.30
Bull Bayou, 32° to 34.9°	1.95
35° to 37.9°	2.10
38° and above	2.25
Cotton Valley	1.20
DeSoto	2.30
Crichton	2.10
Bellevue	1.50
Smackover, below 24°	1.10
24° to 24.9	1.35
25° to 25.9°	1.40
26° to 26.9°	1.45
27° and above	1.50
*Stephens, Ark., below 26	1.45
26° and above	1.65
†Calion (East El Dorado)	1.10
§Urania (May 26)	1.25

Other companies posting in these fields are: Gulf Pipe Line Co.; Atlantic Oil Producing Co. in Homer, Haynesville, El Dorado and Smackover; The Texas Company, Farm and Pipeline—Marland; Phillips Petroleum Co., Johnson-Finklea—Marland; Phillips Petroleum Co., Johnson-Patton—Bartex; Phillips Petroleum Co., Johnson-Williams—Bartex; Phillips Petroleum Co., Johnson-Williams—Marland; Phillips Petroleum Co., Kingsland—Bartex; Phillips Petroleum Co., Kingsland—Magnolia; Phillips Petroleum Co., Jeanette Kingsland—Bartex; Phillips Petroleum Co. & Pulaski, Smith—Bartex; Phillips Petroleum Co. & Pulaski, Smith—Magnolia; Phillips Petroleum Co., Whittenburg, trustee—Bartex; Phillips Petroleum Co., Whittenburg—Bartex; Phillips Petroleum Co., Whittenburg—Marland; Phillips Petroleum Co.-Coble, Whittenburg—Bartex; Phillips Petroleum Co.-Coble, Whittenburg—Gulf; Phillips Petroleum Co.-Coble, Whittenburg—Humble; Phillips-Gibson, Whittenburg (Whitley)—Bartex; Phillips-Gibson, Whittenburg (Whitley)—Marland; Phillips-Gibson, Whittenburg (Sec. 62)—Bartex; Phillips-Gibson, Whittenburg (Sec. 62)—Marland; Phillips-Gibson, Whittenburg (Sec. 63)—Bartex; Phillips-Gibson, Whittenburg (Sec. 63)—Marland; Phillips Petroleum Co., Whittenburg-Huff—Bartex; Phillips Petroleum Co., Whittenburg-Huff—Marland; Phillips Petroleum Co., Whittenburg-Jerry—Bartex; Phillips Petroleum Co., Whittenburg-Jerry—Magnolia; Phillips-Pulaski, Whittenburg—Marland; Phillips-Pulaski, Jennie Wright—Bartex; Phillips-Pulaski, Jennie Wright—Magnolia; Prairie Oil & Gas, Johnson-A—Prairie; Prairie Oil & Gas, Weatherly—Prairie; Relief Oil Co., Smith—Magnolia; Riley-Holmes, Smith—Magnolia; Riley-Holmes, Smith—Plains; Riley-Holmes, Smith—Pantex; Roxana Petroleum Corp., Smith-A—Magnolia; Roxana Petroleum Corp., Smith-A—Marland; Roxana Petroleum Corp., Smith-B—Marland; Roxana Petroleum Corp., Smith-B—Magnolia; Ryan Consolidated Petroleum, Johnson—Marland; Ryan Consolidated Petroleum, Johnson—Prairie; Skelly Oil Co., Cunningham—Gulf; Skelly Oil Co., Powell—Gulf; Skelly Oil Co., Whittenburg—Gulf; Skiatex Oil Co., Kingsland—Marland; L. J. Smith, Kingsland—Marland; Smith-Bynum, Whittenburg—Marland; Smith-Bynum, Whittenburg—Plains; Spring Creek Oil Co., Smith—Marland; Summit Oil Co., Whittenburg—Magnolia; Sunny Jim Oil Co., Whittenburg—Magnolia; Sunny Jim Oil Co., Whittenburg—Plains; Travelers Oil Co., Kingsland—Magnolia; Travelers Oil Co., Kingsland—Marland; Triangle Oil Co., Smith—Plains; Triangle Oil Co., Smith—Magnolia; Ward and others, Cockrell—Marland; Ward and others, Kingsland—Marland; Week Petroleum Co., Block Y—Pantex; Westex Oil Co., Whittenburg—Marland; Westex Oil Co., Whittenburg—Pantex; White Eagle, Johnson—Marland; White Eagle, Smith—Marland; White Eagle, Whittenburg—Marland; J. W. Whittington, Sanford—Pantex

DETERDING OPTIMISTIC ON CONDITIONS IN OIL

NEW YORK, Aug. 14.—"I consider the oil industry to be in a very healthy state," said Henri W. A. Deterding, managing director of Royal Dutch Petroleum Co. on the eve of his departure for Europe.

"Expansion in the oil industry, however, depends on credit. To develop the oil industry properly will require hundreds of millions of dollars.

"Some persons are worried about the production of synthetic benzine (gasoline) but they need have no occasion for worry. This production would only be possible if protected by an enormous tariff. I have heard of serious minded people in Europe proposing a protective tariff of 80 shillings a ton for benzine (gasoline), and a whole cargo of oil can be moved for that. The most optimistic statement of the situation is that by 1928 the production of synthetic benzine throughout the world will amount to only about 50,000 tons a month, and facilities for preparing this benzine (gasoline) will amount to exceedingly large amounts. Fortunately, so far the money invested for this benzine development has been put up by people who are thoroughly familiar with the situation and there has been no stock selling or stock promotion connected with it. The largest contributor to the cause of synthetic benzine (gasoline) is the Badische Anilin of Germany, one of the foremost dye makers of Europe, and they do not expect large output of this product for a long time to come.

"The daily consumption of oil is increasing abroad, due to rapid development of the Diesel engine. The only drawback is the slowness with which Diesel engines are being constructed. Whereas it takes eight to nine months to construct an ordinary steamer, it takes 20 months to produce a Diesel-driven ship. But concerns that have Diesel boats will never go back to steamers.

"Our production in South America, principally in Venezuela, is running at about 70,000 bbls. a day. We are also doing some work in Argentina, but it is not on a paying basis yet.

"We are interested in Turkish Petroleum Co., but in my opinion it will cost several million pounds sterling to develop this area. During the war the Germans drove some shallow wells in a primitive way, and at one time, I understand, production in Mesopotamia reached about 600 bbls. of oil a day. We are satisfied oil is there, but in what quantities we don't know yet. I only want to impress the fact that it is going to cost a great deal of money to develop this work. The pipeline will be 500 miles and it will cost $40,000 a mile to construct.

"Shell Union Oil Corp. is in strong cash position, as of June 30 having cash on hand of $30,000,000. Its oil inventories are carried on the books at actual cost, which is considerably below prevailing market prices."

SAUNDERS SUCCEEDS FORBES

CHICAGO, Aug. 14.—At the office of the Acme Petroleum Co. it was announced that Lee Saunders had been appointed manager of their Kansas City office. R. M. Forbes, manager for several years, has resigned. Mr. Forbes will be connected with Mr. Bergolite's new organization, the Security Petroleum Co.

MAGNOLIA PIPE LINE RUNS

HOUSTON, Tex., Aug. 14.—The runs of the Magnolia Pipe Line Co. from the southwest fields during the month of July were as follows: Luling, 504,598.16 bbls.; Lytton Springs, 87,378.57 bbls.; Mirando, 101,890.14 bbls.

CHANGES AT T. & P. PLANT

Fabian Staley, formerly chief chemist for the Texas Pacific Coal & Oil Co. at its Fort Worth refinery, has been appointed assistant superintendent. E. R. Kahnhofer has been appointed chief chemist to succeed Mr. Staley.

PANHANDLE CRUDE STOCKS CLIMBING

(Continued from Page 30)

Company, Farm and Pipeline—	Wells No.	Average Daily
Phillips Petroleum Co., Johnson-Finklea—Marland	...	270
Phillips Petroleum Co., Johnson-Patton—Bartex	1	17
Phillips Petroleum Co., Johnson-Williams—Bartex	1	234
Phillips Petroleum Co., Johnson-Williams—Marland	...	232
Phillips Petroleum Co., Kingsland—Bartex	1	63
Phillips Petroleum Co., Kingsland—Magnolia	...	40
Phillips Petroleum Co., Jeanette Kingsland—Bartex	1	14
Phillips Petroleum Co. & Pulaski, Smith—Bartex	1	68
Phillips Petroleum Co. & Pulaski, Smith—Magnolia	...	70
Phillips Petroleum Co., Whittenburg, trustee—Bartex	1	None
Phillips Petroleum Co., Whittenburg—Bartex	2	81
Phillips Petroleum Co., Whittenburg—Marland	...	283
Phillips Petroleum Co.-Coble, Whittenburg—Bartex	8	3,544
Phillips Petroleum Co.-Coble, Whittenburg—Gulf	...	973
Phillips Petroleum Co.-Coble, Whittenburg—Humble	...	122
Phillips-Gibson, Whittenburg (Whitley)—Bartex	1	43
Phillips-Gibson, Whittenburg (Whitley)—Marland	...	281
Phillips-Gibson, Whittenburg (Sec. 62)—Bartex	2	52
Phillips-Gibson, Whittenburg (Sec. 62)—Marland	...	357
Phillips-Gibson, Whittenburg (Sec. 63)—Bartex	4	84
Phillips-Gibson, Whittenburg (Sec. 63)—Marland	3	260
Phillips Petroleum Co., Whittenburg-Huff—Bartex	...	484
Phillips Petroleum Co., Whittenburg-Huff—Marland	...	365
Phillips Petroleum Co., Whittenburg-Jerry—Bartex	3	3,192
Phillips Petroleum Co., Whittenburg-Jerry—Magnolia	...	1,497
Phillips-Pulaski, Whittenburg—Marland	2	80
Phillips-Pulaski, Jennie Wright—Bartex	4	248
Phillips-Pulaski, Jennie Wright—Magnolia	...	242
Prairie Oil & Gas, Johnson-A—Prairie	1	4
Prairie Oil & Gas, Weatherly—Prairie	2	85
Relief Oil Co., Smith—Magnolia	1	679
Riley-Holmes, Smith—Magnolia	1	35
Riley-Holmes, Smith—Plains	...	326
Riley-Holmes, Smith—Pantex	...	331
Roxana Petroleum Corp., Smith-A—Magnolia	3	476
Roxana Petroleum Corp., Smith-A—Marland	...	1,182
Roxana Petroleum Corp., Smith-B—Marland	4	546
Roxana Petroleum Corp., Smith-B—Magnolia	...	35
Ryan Consolidated Petroleum, Johnson—Marland	1	109
Ryan Consolidated Petroleum, Johnson—Prairie	...	67
Skelly Oil Co., Cunningham—Gulf	2	503
Skelly Oil Co., Powell—Gulf	1	24
Skelly Oil Co., Whittenburg—Gulf	3	167
Skiatex Oil Co., Kingsland—Marland	2	886
L. J. Smith, Kingsland—Marland	1	129
Smith-Bynum, Whittenburg—Marland	2	227
Smith-Bynum, Whittenburg—Plains	...	10
Spring Creek Oil Co., Smith—Marland	2	378
Summit Oil Co., Whittenburg—Magnolia	2	564
Sunny Jim Oil Co., Whittenburg—Magnolia	2	147
Sunny Jim Oil Co., Whittenburg—Plains	...	458
Travelers Oil Co., Kingsland—Magnolia	2	446
Travelers Oil Co., Kingsland—Marland	...	139
Triangle Oil Co., Smith—Plains	1	87
Triangle Oil Co., Smith—Magnolia	...	393
Ward and others, Cockrell—Marland	1	461
Ward and others, Kingsland—Marland	1	301
Week Petroleum Co., Block Y—Pantex	None	53
Westex Oil Co., Whittenburg—Marland	3	2,347
Westex Oil Co., Whittenburg—Pantex	...	346
White Eagle, Johnson—Marland	1	586
White Eagle, Smith—Marland	3	719
White Eagle, Whittenburg—Marland	1	52
J. W. Whittington, Sanford—Pantex	1	None
Totals	131	59,030

RECAPITULATION BY PIPELINES

Bartex Pipe Line Co.	8,542
Gulf Pipe Line Co.	5,706
Humble Pipe Line Co.	122
Magnolia Pipe Line Co.	9,808
Marland Pipe Line Co.	24,229
Pantex Pipe Line Co.	3,359
Plains Pipe Line Co.	7,112
Prairie Oil & Gas line	152
Total	59,030

RECAPITULATION BY PRODUCING COMPANIES

American Refining Co.	37
Gulf-Panhandle-Cline	2,806
Gulf Production Co.	1,074
Marland Oil Co.	148
Phillips Pet. Co. et al.	13,840
Prairie O. & Gas Co.	89
Roxana Petroleum Corp.	2,239
Skelly Oil Co.	694
White Eagle Oil & Refining Co.	1,357
Miscellaneous	36,746
Total	59,030

TOO LATE TO CLASSIFY

BETWEEN 8,000 and 10,000 acres of oil and gas leases in the eastern part of Putnam and the western part of Overton Counties, Tennessee; Tennessee Central Railroad running through the property. One-eighths royalty. Ten cents rental clause. Near where good gas wells were struck years ago. Want at least one well drilled soon. Reasonable terms to good solvent concerns. Those without reference need not write. Address E. W. Christian, Monterey, Tenn.

2,500-ACRE block oil and gas leases, Stephens County; running 5 years; no drilling obligations; $3.50 acre. Cylde Miller, Duncan, Okla.

ROYALTY PICK-UP

Have producing royalty, one of Texas' best fields. Present runs over 4 per cent per month on purchase price of $2,000. Making more oil than four months ago. Sell all or half. E. D. McMahon, Fort Worth, Tex.

SEVEN 250-bbl. and seven 100-bbl. wooden oil tanks, all in good shape; cheap. Write to the Western Gas Co., Chanute, Kans.

WANTED—Parties to co-operate with me in developing proven oil leases. I own machine and can start drilling immediately. Wonderful opportunity for big profit. J. T. Stanford, Oil Springs, Ky.

FOR SALE by owner—Two good farms in Washington County, Arkansas; heart of the Ozark fruit belt and resort region; pure water; cool summer nights; no trades considered; priced to sell. Address I. L. Mateer, Summers, Ark.

Efficiency in Use of Heat Exchangers

Chart Points to Refinery Economies. Results Depend on Type of Equipment and Method of Installation

By S. C. Ross*

Theoretically, a distillation process such as that used in the refining of petroleum offers the best of all opportunities for the use of heat exchange equipment. The processes are heating and cooling of liquids and gases, and were it not for certain limitations in the matter of time and economical equipment, all losses of heat might be checked except the following:

1. Combustion losses; 2, radiation losses; 3, flue losses; 4, heat exchanger losses.

In other words, where continuous distillation processes are used, it is theoretically possible to limit fuel consumption to that necessary to compensate for the four losses mentioned above. Practically, no refinery approaches this economy. But some come far nearer than others. Since the utilization of heat exchangers results not only in fuel economy but in increased production for the entire unit, it is worth a great deal of study and effort to use equipment which will bring the nearest approach to the theoretical economies the process may permit. The chart (Figure 1) shows at a glance the savings possible from greater refinement in heat exchange practice.

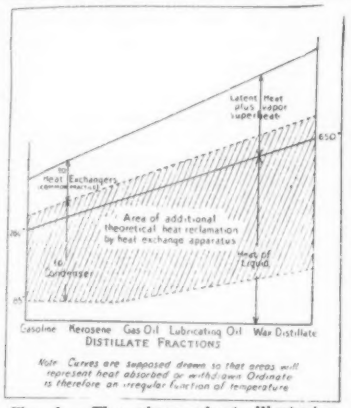

Latent Heat plus vapor superheat
650°
Heat Exchangers commercially
Area of additional theoretical heat reclamation by heat exchange apparatus
to Condenser
Heat of Liquid
Gasoline
Kerosene
Gas Oil
Lubricating Oil
Wax Distillate
DISTILLATE FRACTIONS
Note: Curves are supposed drawn so that areas will represent heat absorbed or withdrawn. Ordinate is therefore an irregular function of temperature

Fig. 1.—The above chart illustrates diagrammatically the general possibilities of heat conservation by the use of heat exchange equipment. The shaded area represents the portion of the heat that is lost to the condenser in ordinary practice and which might theoretically be reclaimed by greater refinements in heat exchanger practice.

Eight Possibilities

There are eight possible results that may be accomplished through the planning and adoption of heat exchanger equipment, depending somewhat upon the type of stills used.

These are:

1, less fuel; 2, saving in bottom steam; 3, increased throughput; 4, better balance in still operation; 5, better fractionation; 6, lower bottom; 7, less condenser water; 8, fewer stills.

It is at once seen that most of these are compensating results. Thus it may be a choice between lower bottom and greater throughput without so much fuel economy or greater fuel economy with highly increased throughput.

But it is easy to see that the possibilities of heat exchange equipment make them a major consideration in refinery planning, instead of the secondary equipment they have long been considered. Well planned exchange apparatus now affects every item of cost in refinery operation—fuel, labor, output—every item in operation and overhead costs.

Figures on Economy

Actual examples of economy with heat exchangers mean very little unless every condition is given. The work of the exchanger is so closely associated with the type of stock, the number of stills, the bottom, fractionation, liquid surface and other variables, that each refinery must have its needs carefully estimated before possible economies can be determined.

However, there are numerous examples where heat exchange apparatus has made possible an increase of from 20 to 35 per cent in throughput, with substantial economies in fuel. In other words, three stills with heat exchange equipment can now equal the output of four without it on a run where gas oil is the lowest distillate, and this with very simple heat exchange equipment.

At first refinery engineers give little attention to the efficient design of heat exchange equipment. It was a certainty that a great deal of heat must be wasted in the condensers in any case—and any heat recovered was so much saving.

Little attention was paid to the efficiency of the designs. Tank and coil, and double pipe exchangers were built of stock pipe, and examples are numerous in which equipment of this type was actually purchased because its square foot of surface cost was lower than that of shell and tube equipment.

The fallacy of this method of comparing price is quickly appreciated when the following factors are considered:

1. The coefficient of exchange of the shell and tube type of exchanger is from 6 to 15 times that of the tank and coil type, depending upon materials handled and the correct design of the shell and tube exchanger.

2. The weight of the shell and tube type is from one-tenth to one-twentieth that of the tank and coil type for equal efficiency. This permits a great saving in structural supports, and also enables the advantageous location of the shell and tube type for heat and pipe economy.

3. The amount of crude in the shell and tube type is only from one-tenth to one-twentieth that in the tank and coil type, which reduces fire hazard.

4. The shell and tube type is more easily handled, easily cleaned where this may be necessary, easily repaired, and its coefficient of exchange with ingoing and outgoing temperatures more easily checked and regulated.

The double pipe types are at best no more than half so efficient as good shell and tube condensers.

These are the considerations which have caused refinery engineers to turn to shell and tube condensers over other types. Now that it is realized that the refinery does not need to waste so much heat in the condensers, now that best refinery practice considers heat exchangers as much a part of the integral design of the refinery as stills or dephlegmators, engineers have naturally turned to the most efficient and economical of heat exchange equipment.

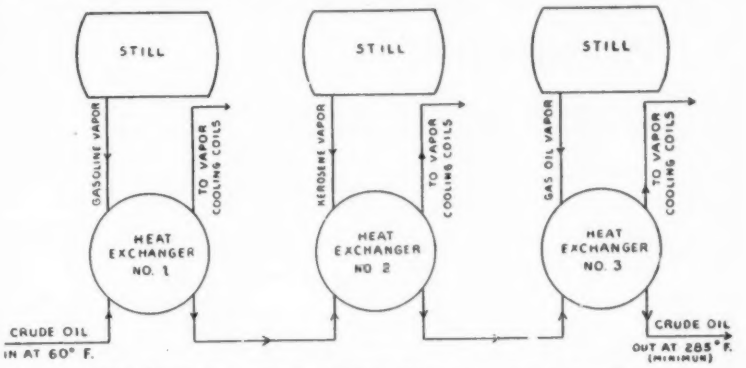
Higher Efficiencies in Demand

Where practice now tends to run the crude down as far as possible in continuous stills, there is a smaller amount of residual for a given amount of crude, and this would apparently mean lessened temperatures in the crude for the first still.

But to offset this, the temperatures of the vapors from the last stills are higher, and the temperatures of the lessened residual is also higher. By using very efficient heat exchange apparatus, a far larger share of the heat from the vapors and residual is obtained, which results in much less loss in the condensers.

In other words, the more efficient the heat exchanger equipment, the greater the heat of the incoming crude, the higher the primary still temperatures, and the less the time for getting the fractions from each still, and the less the amount of residual.

With the adoption of high vacuum distillation, a development which is certainly on its way, the partial condenser will become a complete condenser, and only the most efficient and highest quality apparatus will prove effective and economic.



No. 1—Gasoline Vapor to Crude Oil	No. 2—Kerosene Vapor to Crude Oil	No. 3—Gas Oil Vapors to Crude Oil
VAPOR:	VAPOR:	VAPOR:
1,200 bbls. per day of 24 hrs.	640 bbls. per day of 24 hrs.	800 bbls. per day of 24 hrs.
In at 209 deg. F.	In at 420 deg. F.	In at 550 deg. F.
Out at 190 deg. F.	Out at 250 deg. F.	Out at 305 deg. F.
No steam	2 lbs. steam per. gallon.	2 lbs. steam per gallon.
Maximum pressure drop 1½ lbs.	Maximum pressure drop 1½ lbs.	Maximum pressure drop 1½ lbs.
Specific gravity, .7527.	Specific gravity, .83.	Specific gravity, .85.
To condense 9,000 lbs. per hr.	To condense 6,600 lbs. per hr.	To condense 8,500 lbs. per hr.
Pressure of vapor about 2 lbs.	Pressure of vapor about 2 lbs.	Pressure of vapor about 2 lbs.
CRUDE OIL:		
4,000 bbls. per day of 24 hrs.	33 Baume specific gravity.	Pressure drop, not over 2 lbs. in each unit.
In at 60 deg. F.	Spt. ht. .5 average (varies with temp.)	Working pressure, 100 lbs.
Out at 285 deg. F. (not less, more if possible).	Viscosity, 60 Saybolt at 100 deg.	

Fig. 3—Typical flow sheet representing heat economies made by the use of heat exchanger equipment.

Criterion of Economy

This cycle of efficiency has at last given the refinery engineer some gauge of how much heat he should permit to go to waste in the condenser. And it is placing possible economies squarely up to efficient design of temperature exchange equipment.

Here are the principal considerations in this cycle of efficiency; with reciprocating elements balanced one against the other:

Greater throughput
Lower bottom—less residual
Less steam, or
More vapor at each temperature
Higher temperatures
More efficient exchangers.

By adjusting these variables, the results are saving in fuel and a lower temperature for the vapor when it reaches the condenser boxes, with a less amount of water needed for consideration.

Here, it is easy to see that there is no heat to waste. All of it cannot be recovered by any means. There will always be exchanger losses and the con-

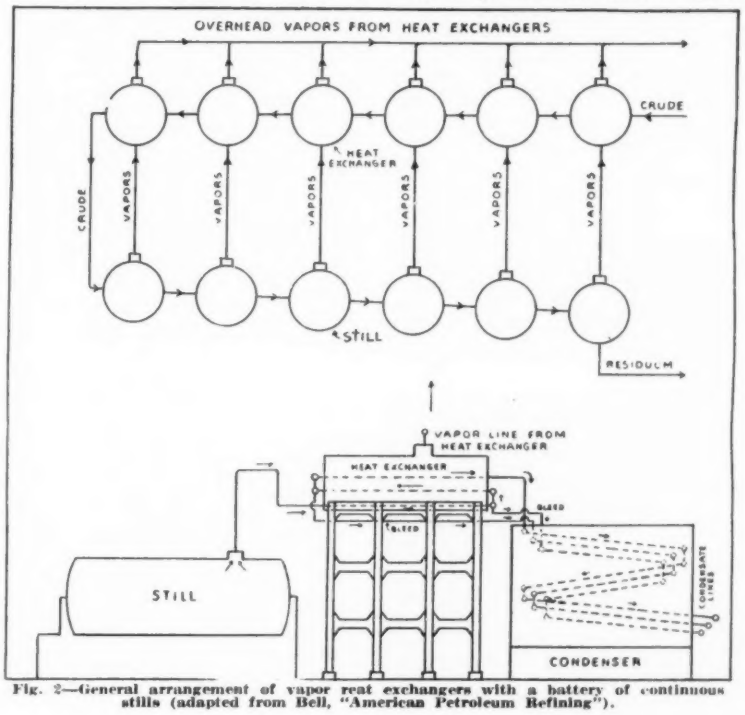


Fig. 2—General arrangement of vapor heat exchangers with a battery of continuous stills (adapted from Bell, "American Petroleum Refining").

*Ross Heater & Manufacturing Co., Inc.

It takes a lot of customers to absorb the output of McKim Gaskets.

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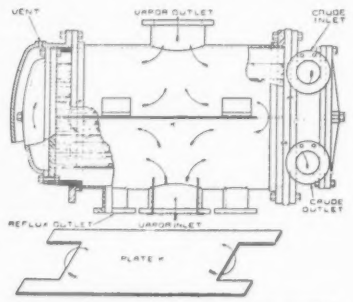

Fig. 4—Sectional view of a Ross partial condenser used in continuous still operation.

exchange equipment which forces this equipment to take more and more of the loss which formerly went to the condenser.

The chart shows the vast possibilities open to refineries in this regard.

Mexico's Oil Laws May Be Discussed At New Conference

By L. M. Fanning

While cable advices from Mexico City quote El Universal as stating that it is informed from a reliable source that a conference of all petroleum interests having holdings in Mexico will be held in New York City in September, executives of American companies operating in Mexico who are in close touch with the present conditions, state they have not been informed of any such conference. The purpose of the meeting, it is said, would be to discuss thoroughly the new oil law and regulations, especially the situation arising out of the laws relating to holdings acquired prior to the enactment of the Mexican constitution of 1917.

Following the promulgation of the regulations of the petroleum law of December, 26, 1925, which regulations were officially published in April, 1926, the situation as regards operations of foreign oil interests in Mexico has become increasingly muddled. At times there had been indications of a complete empasse on drilling as far as major oil companies are concerned due to an order of the Department of Industry, Commerce and Labor respecting the taking out of provisional drilling permits.

New oil drilling operations by American companies in Mexico have been rendered exceedingly difficult, if not virtually impossible, by this recent official order. It is understood that the American and other foreign interests represented in the Association of Producers of Petroleum in Mexico lodged a vigorous protest in an effort to bring about its repeal or modification but that thus far they have not met with success.

The order provides for the issuance during the remainder of 1926 of only "provisional permits" for drilling. An application for one of these permits obligates the applicant to accept conditions which seriously restrict his property rights in Mexico, it is stated. The provisional permits are also described as enabling the company to drill but denies the drilling company the right to use the production until such provisional permit is made a regular permit. The regular permit, in turn, compels virtual forfeiture of rights contrary to the law, it is declared.

Officials of interested companies state further that the Department of Industry, Commerce and Labor is giving out provisional permits in spite of the secretary's assurance that such permits would not be issued except unlimited bonds were required. Permits are given out indis-

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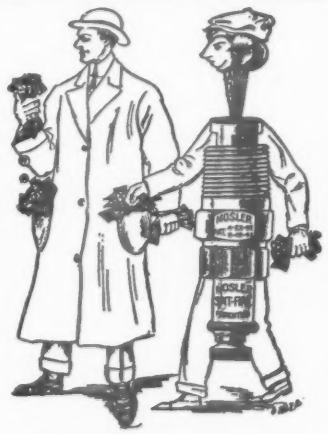

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criminately, it is stated, without bonds being required.

For some time a commission has been at work in Mexico City with a view to straightening out matters connected with the new petroleum regulations. This commission comprises representatives of the Department of Industry, Commerce and Labor, the Mexican Assembly and Senate, and foreign oil interests are represented by Shirley Branch of the Pan American Petroleum & Transport Co. The carrying into effect of most of the provisions of the regulations will occur December 31, of this year, and among other things which the commission is working on is the matter of delimiting proved from unproved acreage and determination as to tax reductions in new territory.

FOSSIL STUDY ABROAD TO LOCATE OIL STRATA

By Charles E. Kern
Washington Bureau, The Oil and Gas Journal

WASHINGTON, D. C., Aug. 14.—It has been announced at the Smithsonian Institution that microscopic fossils of importance in the location of oil-bearing strata in the United States are to be collected in Europe by Dr. R. S. Bassler, curator of paleontology of the United States National Museum, Washington, D. C.

According to Doctor Bassler, an indefinite knowledge of European foraminifera, ostracoda and other microscopic fossils has delayed work on the same classes in America where these fossils are of utmost importance in determining the underground geology of petroleum areas.

Much work has been done on these forms in Europe in the past, he explained, but the fossils described have been figured so diagramatically that it is now impossible to recognize species from the drawings. Doctor Bassler proposes to make collections of the actual fossils to compare with America finds.

These tiny fossils serve to identify the strata in which they occur and are the only means by which the hidden structure of the underground rocks can be traced. Oil usually accumulates in upfolds of the strata and to locate the oil it is necessary to discover such hidden folds in the rocks. When fossils characteristic of a certain strata are found at one depth in one drill hole and at a different depth in drilling another hole, the gelogist is given a clue to the presence of a fold in the underground strata which may contain oil.

Doctor Bassler's work in Europe will be the collection of fossils from outcropping rocks and their correlation with the work in rock strata which has been done in Europe in the past but is now locked from use in America because the species of the microscopic marine shell-fish cannot be distinguished from the drawing.

Doctor Bassler will return to this country the latter part of September.

REFINING AT CURACAO

Doctor Brantjes, governor of the island of Curacao, speaking of the development of its petroleum industry, pointed out that in 1921 the Curacaosche Petroleum Maatschappij, Royal Dutch-Shell, treated about 400 tons of crude oil daily in its refinery. At the commencement of last year this had risen to 3,000 tons daily, while last July it was 5,500 tons. At the end of 1925, the daily figures were 6,500 tons, and at present, with the addition of the Trumble plant in operation, the quantity dealt with was 9,000 tons daily, and this would be increased to 10,000 tons before the end of the present year.

OIL DISCOVERY IN ALBANIA

WASHINGTON, D. C., Aug. 14.—The Minister for Foreign Affairs at Tirana, Albania, has informed the American Legation that the Anglo-Persian Oil Co. has discovered oil in the district of Mallakastra, near Valona, at a depth of 277 meters. The company reported the gas pressure lifted the oil 60 meters from the surface. It estimates the output may reach 40 tons daily when reservoirs are completed.

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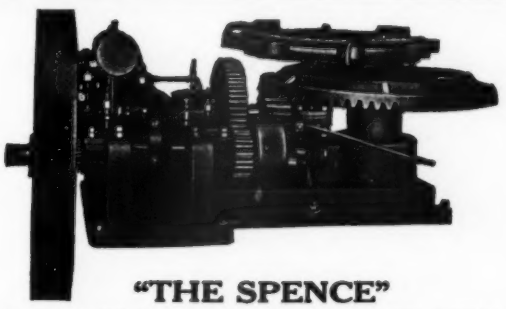

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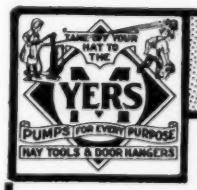

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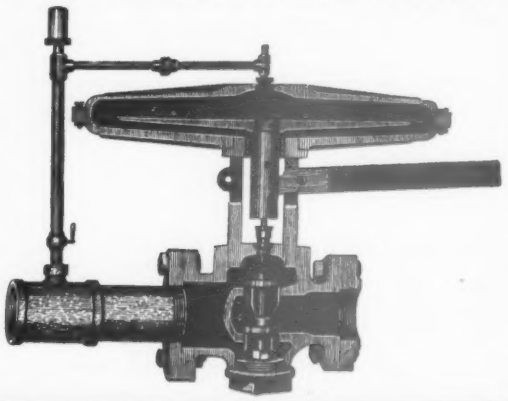

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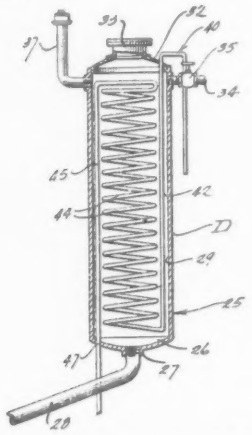
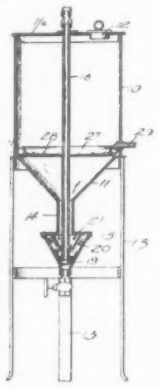
Recent Patents

1,587,370. Apparatus for Refining Hydrocarbon Materials. Frank M. Floyd, Dallas, Tex. Filed May 19, 1922. Serial No. 562,135. 2 Claims. (Cl. 196—99.)



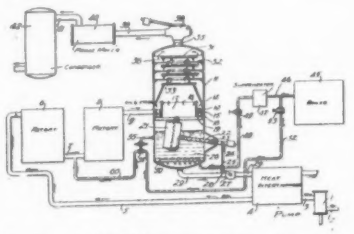
1. In an apparatus for refining hydrocarbon materials the combination of a still, means for supplying a hydrocarbon material to the still, a reflux condenser, means communicating the lower end of the reflux condenser with the still, a coil within the reflux condenser, an inlet conduit leading upwardly within the reflux condenser from the bottom of the coil and exiting from the reflux condenser at the top thereof, and an exit conduit connected to the top of the coil and leading downwardly through the reflux condenser and exiting through the bottom of the reflux condenser and leading into said still and having an outlet adjacent the bottom of the still.

1,585,456. Process for Renovating and Clarifying Used Gasoline. William Allison, Des Moines, Iowa. Filed September 6, 1921. Serial No. 498,767. 4 Claims. (Cl. 196—15.)



4. A process for renovating gasoline, comprising the forcing of the gasoline under pressure, into the lower part of a body of a settling chemical, heavier than the fluid to be renovated and through a restricted exit from the chemical container.

1,586,130. Apparatus for Distilling Hydrocarbons. Milon J. Trumble, Los Angeles, Calif. Filed April 16, 1923. Serial No. 632,287. 5 Claims. (Cl. 196—104.)



1. In oil distilling apparatus, the combination of: means for raising oil to the desired temperature of volatilization; a separator into which the heated oil is

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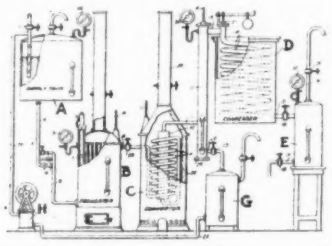
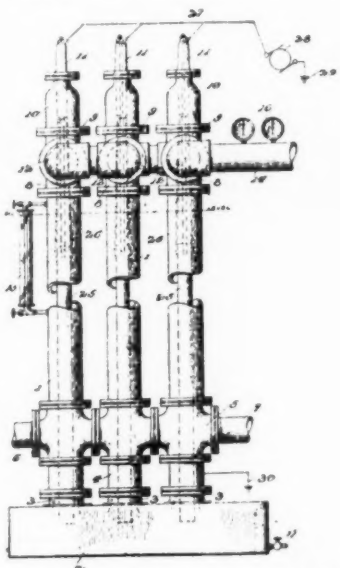
delivered; means for regulating the discharge of oil from said separator in proportion to its entrance thereinto; means associated with the vapor outlet of sand separator for definitely regulating the pressure within said separator; and means of converting the expansive heat energy of the vapor products from said separator into mechanical energy.

1,585,355. Process for the Conversion of Oils. Joseph H. Adams, Brooklyn, N. Y., assignor to The Texas Company, New York, N. Y., a corporation of Texas. Original application filed June 15, 1916, Serial No. 103,725. Divided and this application filed June 28, 1923. Serial No. 648,240. Two claims. (Cl. 196—61.)



2. A continuous method of converting high boiling hydrocarbon oil into lower boiling products, that comprises continuously heating a moving stream of oil under superatmospheric pressure to a point of incipient vaporization while maintaining it in liquid form, delivering the heated oil to and forcing it under superatmospheric pressure through an extended cracking coil of restricted cross section maintained at a cracking temperature wherein the oil breaks into vaporous form and is partially cracked, expanding the partially cracked oil into an enlarged cracking chamber maintained at substantially the same superatmospheric pressure and cracking temperature as in said coil and in which further cracking of the oil is effected, and removing the cracked and uncracked oil from the chamber while condensing the cracked vapors under superatmospheric pressure.

1,588,308. Art of Treating Hydrocarbons and Oils. Louis Bond Cherry, Kansas City, Mo., assignor, by mense assignments, to C. and C. Development Co., Kansas City, Mo., a corporation of Arizona. Filed November 11, 1919. Serial No. 337,182. 27 Claims. (Cl. 196—57.)



1. In the treatment of oils and the like, subjecting the oil to cracking temperature at a cathode while subjecting the oil to an ionizing electric current flowing therethrough from an anode to said cathode.

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Detailed Operations in Western Fields for Month of July

SUMMARY OF ALL FIELDS

Summary of Wells Completed

Field—	Comp.	Prod.	Dry	Gas
Eastern	396	2,742	60	63
Central Ohio	70	556	17	37
Lima	52	861	4	2
Indiana	29	817	3	2
Illinois	33	1,124	6	2
Kentucky	127	804	26	3
Tennessee	2	100	1	0
Kansas	303	18,892	109	10
Oklahoma	598	92,914	207	49
North and West Texas	651	45,957	276	7
Texas Panhandle	61	35,695	1	4
East Texas	6	6,850	3	0
Gulf Coast	114	77,125	41	0
Southwest Texas	77	11,110	21	3
Arkansas	93	4,017	22	3
Louisiana	105	5,602	31	13
Wyoming	56	4,063	8	3
Montana	58	9,507	19	6
Colorado	12	3,749	4	1
New Mexico	13	1,390	5	0
Total July	2,856	323,875	864	208
Total June	2,417	208,532	646	186
Difference	439	115,343	218	22

Summary of New Work

Field—	Rigs	Drg.	Ttl.
Eastern	153	496	649
Central Ohio	47	103	150
Lima	2	55	57
Indiana	3	45	48
Illinois	4	52	56
Kentucky	12	185	197
Tennessee	0	13	13
Mississippi	5	9	14
Alabama	0	4	4
Florida	0	1	1
Kansas	91	347	438
Oklahoma	235	1,207	1,442
North and West Texas	122	765	887
Texas Panhandle	105	440	545
East Texas	18	60	78
Gulf Coast	55	189	244
Southwest Texas	40	119	159
Arkansas	39	118	157
Louisiana	51	120	171
Wyoming	41	358	399
Montana	12	128	140
Colorado	16	97	113
Utah	2	31	33
New Mexico	8	151	159
Total July	1,061	5,093	6,154
Total June	1,147	4,973	6,120
Difference	86	120	34

Note—In the following report the Section, Township and Range are given first; then the farm, the owner, the serial number of the well and the initial production of the well. The rigs and wells drilling are set forth in similar manner. In lines where the Section, Township and Range are missing the wells are located in the Sections, Townships and Ranges which appear next above in the report.

OKLAHOMA FIELDS

Summary of Wells Completed

County—	Comp.	Prod.	Dry	Gas
Osage	81	8,228	25	3
Tulsa	23	4,737	13	2
Okmulgee	65	1,981	33	7
Seminole	30	12,957	1	3
Okfuskee	18	738	8	4
Hughes	16	11,225	4	1
Muskogee and Wagoner	27	230	17	5
Creek	84	12,264	19	5
Pawnee	23	492	11	1
Kay	30	17,378	5	4
Payne	22	1,330	15	1
Lincoln	18	1,241	4	0
Garfield	36	15,828	6	0
Stephens and Cotton	12	65	9	2
Jefferson	5	325	1	0
Carter	24	3,058	3	2
Grady	11	35	2	6
Nowata	17	150	6	2
Washington	19	81	8	0
Rogers	16	89	6	1
Miscellaneous	21	482	11	0
Total July	598	92,914	207	49
Total June	490	67,845	142	40
Difference	108	25,069	65	9

Summary of Rigs and Wells Drilling

County—	Rigs	Drg.	Ttl.
Osage	31	86	117
Tulsa	5	36	41
Okmulgee	22	78	100
Seminole	22	113	135
Okfuskee	15	49	64
Hughes	1	59	60
Muskogee and Wagoner	3	25	28
Creek	41	130	171
Pawnee	8	41	49
Kay	6	96	102
Payne	2	39	41
Lincoln	4	40	44
Noble	1	21	22
Grant	1	15	16
Garfield	8	110	118
Grady	9	23	32
Comanche	3	20	23
Pontotoc and Garvin	4	15	19
Stephens and Cotton	8	45	53
Jefferson	4	9	13
Carter	20	71	91
Miscellaneous	17	86	103
Total July	235	1,207	1,442
Total June	233	1,214	1,447
Difference	2	7	5

OSAGE COUNTY

2-27- 5e	Phillips Pet. 1		1,382
17-27- 6e	Peters Pet. 4		573
10-27-11	C. C. Ross 1		3
19-25- 8e	A. G. Oliphant 2		30
29-24- 8e	Continental Oil 5		dry
27-24-10	Winona Oil 3		25
4-22-10	James Glenn 1		dry
2-21- 8e	Skelly & Moore 7		65
7-21- 9e	W. S. Mitchell 1		30
34-21-11	Essley et al 1		dry
15-29-10	Keener O. & G. 15		25
9-26- 6e	Carter Oil 9		60
21-26- 6e	Lewis Oil 5		350
25-26- 8e	Pet. Drlg. Co. 18		gas
28-25- 6e	I. T. I. Oil 1		dry
16-24- 8e	Marland & Agents 8		dry
28-24-10	Peters Pet. 5		25
1-24-11	Tselos & Roxana Pet. 4		15
13-23-10	Am. Oil & Dev. Co. 21		25
33-22-10	Tidal Osage Oil 26		5
23-22-11	Branstetter et al 2		40
7-21- 9e	W. S. Mitchell 2		40
2-20-10	New Eng. O. & P. L. Co. 1		dry
30-20-11	Sand Springs Home Oil 93		dry
25-29-11	A. D. Simon 1		5
2-27- 5e	Phillips Pet.		dry
8-27-11	Osage Gas Prod. Co. 367		gas
16-26- 6e	Carter Oil Co. 17		dry
21-26- 6e	Phillips Pet. 4		525
	Phillips Pet. 12		550
33-24- 9e	Continental & Prairie 2		15
9-23- 8e	Pure Oil 171		500
20-22-10	J. H. Winemiller 4		dry
23-22-10	Bradford Tank Co. 3		dry
34-22-10	Tidal Osage Oil 18		20
2-21-8e	Skelly Oil & Moore 8		15
33-21- 9e	J. G. Glenn 1		5
17-21-11	Okla. Nat. Gas 713		gas
15-21-12	Tidal Oil et al 7		22
22-21-12	Tidal Oil 2		15
35-20-11	Echo Oil 1		dry
5-20-12	Gillespie & Sons 5		28
15-29-10	Keener O. & G. 16		40
	Keener O. & G. 17		20
25-29-10	I. T. I. Oil 1		dry
1-27- 5e	Phillips Pet. 4		730
2-27- 5e	Phillips Pet. 5		dry
12-27- 5e	Phillips Pet. 8		325
20-26- 6e	Phillips Pet. 14		100
21-26- 6e	Phillips Pet. 8		600
	Lewis Oil 6		450
30-25- 9e	New England O. & P. L. 1		dry
22-24-10	Western American Oil 1		dry
17-23-12	Barnsdall Oil 10		1
35-22- 8e	Skelly-Moore Oil 2		50
5-22-11	Kewanee Oil 14		25
3-21- 9e	Skelly & Moore 5		dry
24-21- 9e	Devonian Oil 1		dry
15-21-10	Devonian Oil 2		dry
27-21-10	Devonian & Tidal Oil 3		15
20-21-11	Winona Oil 1		dry
29-20-12	Winona Oil 7		125
21-25- 6e	The Prairie O. & G. 8		175
33-29-11	Reiter-Foster 1		dry
2-27- 5e	Phillips Pet. 3		dry
	Skelly Oil 2		dry
12-27- 5e	Phillips Pet. 13		220
26-27- 5e	Skelly Oil 6		130
34-27- 6e	Kewanee O. & G. 1		236
11-27-10	Pure Oil 88		75
1-26- 9e	Ike Johnson 1		dry
21-25- 6e	Sinclair Oil 1		dry
29-25- 8e	Lewis Oil 10		130
30-25- 8e	Lewis Oil 2		133
16-24- 8e	Marland & Agents 9		10
1-24-11	Barnsdall Oil 5		5
5-23- 9e	Continental & Prairie 3		100
17-23-12	Silurian Oil 49		30
18-22-11	S. Nadle 9		10
5-22-12	T. K. Smith 1		60
17-21-12	Kewanee Oil 1		40
Wells completed			81
Production			8,228
Dry			25
Gas			3
Gas production			10,750,000

TULSA COUNTY

23-19-10	Nevins, W. E. Brown Oil 1	dry
9-19-11	Riverbed, Holmes & Gledden 1	dry
33-18-14	Colbert, F. A. Best 2	dry
4-16-13	Stewart, Kewanee O. & G. 17	3200
23-19-10	Unallotted, W. E. Brown Oil 3	480
6-18-13	Davis, T. Henderson et al 1	dry
13-16-13	Techarns, Cates et al 2-A	100
18-16-14	McCoy, Shaffer O. & R. 4	dry
34-19-11	Anderson, Riverland Oil 1-A	892
28-18-14	Flippen, T. Green et al 1-A	dry
32-21-14	Bowlet, J. E. Moore et al 1	dry
26-22-13	Sunderman, J. H. Middleton 3	dry
2-22-12	Rogers, Chas. Page 1	dry
31-21-13	Collins, Tidal Oil 5	10
12-20-12	Winton Heirs, Campbell Oil 13	10
30-21-13	Phillips, F. A. Gillespie 9	gas
8-18-13	Thomas, Elliott et al 1	40
24-18-13	Bcone, Peterson 1	dry
26-18-14	Scott, D. R. Owens 1-A	5
4-16-13	Buck, Petroleum Corp. et al 19	dry
25-18-14	Island, Ellen Oil 2-A	gas
6-17-13	Oswald, Holt et al 2-A	dry
4-16-13	Strip, J. A. Swindler 1-A	dry
Wells completed		23
Production		4737
Dry		13
Gas		2
Gas production		4,000,000

OKMULGEE COUNTY

20-16-12	Doneghy, Sheldon Oil et al 3	25
24-16-12	Tiger, Devonian Oil 2	18
30-16-13	Tiger, Enfisco Oil 4	gas
34-16-14	Bruner, Harsha & DeLaney 1	40
35-15-12	Claunch, W. E. Hammond 2	gas
3-11-12	West, E. L. Kistler 1-A	50
18-15-13	Doyle, W. B. Pine 8	dry
9-14-14	Stevens, W. A. George 11	30
13-14-14	Rentie, T. Sauter 5	dry
35-13-13	Anderson, J. L. Selby 29	8
15-13-14	Doyle, Cal Cul Oil 5	12
25-13-14	Stake, Sam Bright 7	25
29-13-14	Wiley, F. E. Cuseck 3-A	dry
7-13-15	Freeman, E. J. Lambert 5	gas
1-12-13	Wiley, R. W. Viersen 1	dry
13-11-13	Kanard, B. Morgan 5	gas
31-16-11	Colommy, Keener et al 4	dry
29-16-13	Stanley, McCulloch Oil 1	dry
3-15-11	Clover, Clover et al 4	25
26-15-12	Lee, W. E. Hammond 5	dry
4-14-12	Farr, W. T. Campbell et al 1	97
27-13-11	Jones, J. H. Rebold 1	3
31-13-12	Morton, L. C. Wheeler 1	dry
4-11-12	Hawkins, J. Droppleman et al 3	gas
18-11-12	Fish, F. L. Dunn 1-A	gas
31-11-12	Burnett, Wirick & King 2	dry
33-15-13	Tiger, Gray Oil 1	dry
11-15-14	Adams, F. D. Misener 9	5
19-15-14	Harrison, A. W. Cline 1	dry
14-14-13	Lovett, E. T. McDowell et al 1	dry
20-14-14	Sadler, F. E. Perkins 18	dry
15-13-14	Doyle, Simms Oil 15	50
29-13-14	Wiley, F. E. Cuseck 4	40
2-15-11	Grayson, Jackson & Wise 4	dry
9-15-12	Forty-Four, Carter Oil et al 2	dry
24-15-12	Blair, C. E. Campbell 1-A	50
	Blair, Ted Savoie 2	dry
35-15-12	Ostran, Barbara Oil 4	gas
32-13-11	Thomas, Denver P. & R. Corp. 7	gas
4-15-13	Althanen, Humble O. & R. 1	dry
19-15-13	Phillips, Thompson & Black 1	dry
2-15-14	Deere, Future Dev. Co. 6	dry
3-15-14	Andrews, R. C. Vincent 1	35
21-15-14	Osborn, J. L. Selby 2-A	dry
	Garnett, The Texas Company 12	538
16-14-14	Love, John Aggas 4	15
	Colbert, F. D. Misener et al 10	dry
15-13-14	Doyle, Simms Oil 16	40
24-13-14	Thornsberry, Iron Mtn. Oil 11	50
23-15-12	Butler, Wigton, Long & Mid-Cont. Pet. 1	dry
30-14-11	Madigan, R. E. Garrett et al 1	dry
25-13-11	Lewis, J. A. Swindler & Sons 7	200
6-11-12	Jacobs, C. O. Buckles 4	10
33-11-12	Corbray, W. L. Barclay 1	dry
8-15-13	Jimmie, A. E. Kirkland & Son	dry
16-15-14	Bruner, The Texas Company 4	400
18-15-14	Harrison, Vensell & Elliott 9	dry
30-16-13	Tiger, McCulloch Oil 1	dry
18-15-12	Huffstetter, L. C. Wheeler 1-A	dry
16-15-14	L. Alexander, Jolly & Ogg Oil 4	200
21-15-14	Garnett, The Texas Company 13	dry
31-15-14	James, Burk Greis & J. G. Catlett 1-A	dry
14-14-14	Colbert, Mechling & Berlin 5	dry
15-14-14	Colbert, J. G. Haas et al 14	15
16-14-14	Colbert, F. D. Misener 11	dry
Wells completed		65
Production		1981
Dry		33
Gas		7
Gas production		72,000,000

SEMINOLE COUNTY

24-9n-6e	Dyer, I. T. I. Oil 2	102
	M. Carter, I. T. I. Oil 1	328
35-9n-6e	Cudjo, Carter Oil 1	gas
7-9n-8e	Cobb, Independent, Jarvis & Holm 1	100
8-9n-8e	Buckner, Phillips Pet. 2	26
18-9n-8e	Peter, Southwestern Pet. 2	65
	Jefferson, Shaffer O. & R. 2	100
15-8n-6e	Ida, I. T. I. Oil 1	gas
16-8n-7e	Carolina, Magnolia Pet. 3	dry
23-8n-7e	Johnson, Mid-Cont. Pet. 1	47
31-8n-8e	Amos, W. R. Ramsey 5	3487
6-7n-8e	Davis, Magnolia & Atlantic 4	1270
24-9n-6e	Dyer, I. T. I. Oil 2	78
	Pahardy, Tidal Osage Oil 1	1232
25-8n-7e	Logan, Dixie Oil 1	20
28-11-8e	Williams, Gypsy Oil 1	20
5-10-8e	Williams, Gypsy Oil 3	5
24-9n-6e	Reed, I. T. I. Oil 8	48
7-9n-8e	Cobb, Independent, Jarvis & Holm 2	190
5-7n-8e	Skinner, Magnolia Pet. 6	1524
24-9n-6e	Carter, Carter Oil 1	106
	Pahardy, Mid-Cont. Pet. 1	1481
7-9n-8e	Alexander, T. B. Slick 1	105
5-7n-8e	Skinner, Magnolia Pet. 7	960
33-11-8e	Pierce, Sinclair Oil 9	90
24-9n-6e	Reed, I. T. I. Oil 2	109
23-8n-7e	Hanning, Magnolia Pet. 2	9
5-7n-8e	Simon, Independent & Atlantic 2	400
	Skinner, Magnolia Pet. 8	1056
25-6n-6e	Minton, T. B. Slick 1	gas
Wells completed		30
Production		12,957
Dry		1
Gas		3
Gas production		20,000,000

OKFUSKEE COUNTY

10-12-11	Hook, E. L. Robinson 1	25
32-12-11	Fields, Josey Oil 1	180
13-11-11	Holmes, Independent O. & G. 14	dry
22-11-11	Guy, Champlin Refg. Co. 9	25
30-11-11	Holmes, Riverland Oil 1	gas
18-10-11	Alberty, Amerada, Morgan & Flynn 1	258
11-11-11	Hopwood, Colorado O. & G. 3	dry
22-11-11	Holmes, Champlin Refg. 8	dry
1-11-8e	Harris, Wilcox O. & G. 1	dry
33-12-11	McCoy, Josey Oil 11	100
23-11-11	Jefferson, Champlin Refg. 2	gas
35-11-9e	Severs, E. L. Robinson 1	150
30-11-10	Groves, The Prairie O. & G. 1	gas
14-12-8e	Isaac, Western State 1	dry
1-12-9e	Jones, Blakely O. & G. 1	dry
3-12-11	Grayson, J. J. Deaner 2	dry
36-11-9e	Buck, Minnehoma Oil 1	gas
11-11-11	Smith, Bingham & Smith 3	dry
Wells completed		18
Production		738
Dry		8
Gas		4
Gas production		40,000,000

HUGHES COUNTY

25-8n-9e	Harjo, Independent O. & G. 1	dry
29-8n-9e	Kibby, Kingwood Oil 1	135
5-7n-8e	Frederick, Amerada Pet. 4	2325
14-8n-9e	Long, Independent O. & G. 1	dry
3-9n-9e	Alexander, Mid-Cont. Pet. 9	150
5-7n-8e	Frederick, Amerada Pet. 7	1213
	Frederick, Amerada Pet. 8	1635
	Frederick, Amerada Pet. 9	1640
	Garner, Dixie Oil 3	1430
1-9n-9e	Cain, Minnehoma Oil 1	dry
19-9n-9e	Charles, I. T. I. Oil 1	gas
29-8n-9e	Lowe, Kingwood Oil 1	180
5-7n-8e	Frederick, Amerada Pet. 6	1017
	Frederick, Amerada Pet. 11	960
	Ferguson, McCulloch Oil et al 1	640
8-7n-8e	Turner, Magnolia Pet. 1	dry
Wells completed		16
Production		11,226
Dry		4
Gas		1
Gas production		5,000,000

MUSKOGEE AND WAGONER COUNTIES

19-19-16e	Tiger, Mays Bros. et al 1-A	dry
21-17-16	Childers, Sevreda Oil 2	20
36-16-17	Brown, Harris & Whaley 1	gas
12-14-16	Grayson, W. Reed 1	dry
29-18-16	Hawks, D. T. Marr et al 2	10
29-18-17	Abrams, Flintridge Oil 2	dry
25-17-16	White, Larsarskey et al 3	dry
31-15-15	Mason, E. A. Hutchinson et al 3	gas
10-18-16	Childers, G. E. Hawks 1	dry
23-18-16	Childers, Cartwright et al 1	dry
10-17-16	Roberson, Kid Ray Oil 5	dry
13-17-16	Marshall, W. A. Dodd et al 2	dry
25-17-16	White, Schlingman 4	gas
26-17-16	Glover, Bryan & Emery 1	gas
14-15-15	Smith, King & King 6	dry
28-15-17	Taylor, J. M. Foltz 5	gas
5-14-19	Goodrich, C. M. Bradley et al 3	dry
27-13-19	Neal, Clay & W. D. Shedden 1	dry
8-16-19	Chissoe, B. B. Wheeler et al 1	dry
22-15-15	Vanderslice, E. L. Kistler 4	dry
31-15-19	Smith, Ozark Drlg. Co. 1	dry
5-14-19	Compton, Cumberland Oil & Whaley 3	dry
6-17-15	Kelly, W. R. Sommerville 2	25
16-17-16	Cully, Skeeter Oil 6	dry
12-16-15	Barnett, A. J. Wust et al 2	5
30-15-15	Vanderslice, H. P. Culp et al 3	170
19-14-19	Hardeshell, M. E. Johnson 1	dry
Wells completed		27
Production		230
Dry		17
Gas		5
Gas production		17,000,000

CREEK COUNTY

22-27-9e	Self "A," The Prairie O. & G. Co. 7	25
21-17-7e	Litchfield, The Prairie O. & G. 39	dry
1-14-7e	Ford, The Prairie O. & G. 2	25
13-19-8e	Ruth, Gled Oil 3	40
15-17-7e	Stewart, Mid-Cont. Pet. 25	15
22-17-7e	Fife, Tidal Oil 5	210
27-17-8e	Bigpond, Inter-Ocean & McCulloch 4	80
	Bruner, Southwestern Pet. 2	20
1-19-9e	Carolina, Buckeye Drlg. Co. 3	15
21-18-9e	Walker, J. A. Hull 2	40
24-17-10	Tahkaney, J. H. Wright 1	3550
	Tahkaney, J. H. Wright 8	400
17-17-11	Wacoche, Shaffer O. & R. 5	gas
30-15-9e	Unallotted, C. G. Tibbens 29	880
16-14-10	Bear, Atlantic O. P. 1	640
6-19-8e	McElroy, Mann & Smith 1	dry
14-19-8e	Miller, Devonian Oil 2	60
	Miller, Devonian Oil 3	250
1-18-7e	Chapley Jack, Burnett Oil 2	100
22-17-7e	Fife, Tidal Oil 12	35
22-17-8e	Johnson, Savoy Oil 5	25
23-17-8e	Walker, Savoy Oil 2	35
9-16-8e	Yardy, Margay Oil 3	12
12-14-8e	McKan, Skelly Oil 14	50
2-18-11	Sherrill, Sheridan Oil 2	20
6-18-12	Townlot, Day Bros. 1-A	gas
	Kennedy, Gypsy Oil 9	22
	Gray, Gypsy Oil 19	35
	Gray, Gypsy Oil 21	50
	Bigpond, Regal Oil 27	135
16-17-10	Littlehead, M. P. Evans et al 1	dry
19-17-10	Wanuke, A. B. Ice 3	dry
	Dickson, The Texas Company 1	dry
23-17-10	Baker, Easter Oil 1-A	dry
	Fulson, Kirshner et al 1	dry
24-17-10	Tahkaney, J. H. Wright 10	35
28-17-11	Watkins, Ike Simmons 2	25
	Barnett, Transcontinental Oil 4	dry
21-16-9e	Greenwood, Joemack Oil 2	dry
13-19-8e	Peters, Burlengame & Sharp 4	110
4-18-7e	Atkins, Gem Oil 25	100
6-18-7e	Vance, Magnolia Pet. 16	60
	Britton, Shaffer O. & R. 7	15
32-18-7e	Derrisaw, Magnolia Pet. 8	30
26-17-8e	Sarhilla, O. H. Chapman et al 1	200
21-16-8e	Arsoyalee, Peters Pet. 3	gas
2-15-8e	Harjo, Wilcox O. & G. 5	65
19-15-8e	Halloway, Lima O. & G. 1	gas
2-14-8e	Ponds, Gypsy Oil 8	25
13-14-8e	Farha, C. G. Tibbens 2	20
12-18-11	Unallotted, Crude Oil Dev. Co. 1	10
	Land, E. L. Kistler et al 1-A	10
6-18-12	Sango, Sunray Oil et al 6	35
24-17-10	Bucktrot, Pioneer Pet. 5	840
	Bucktrot, Pioneer Pet. 6	2040
34-17-10	Bucktrot, B-Jack Oil 1	dry
17-14-9e	Lucas, Stebbins O. & G. 1	dry
11-14-8e	Henderson, The Prairie O. & G. 4	120
13-19-8e	Peters, Burlengame & Sharp 5	100
18-19-9e	Sewell, Roxana Pet. 1-A	721
22-18-9e	Taylor, M. P. Evans 1	dry
12-17-10	Harris, R. O. Bailey et al 1	dry
23-17-10	Holden, Kirshner et al 2-A	5
21-16-9e	Jacobs, Emery & Sons 7	50
5-14-9e	Long, Joemack Oil 1	dry
29-14-10	Bear, Independent O. & G. 1	50
11-14-8e	Henderson, Prairie O. & G. 4	100
13-19-8e	Ross (W.) Gled Oil 3	100
16-18-7e	Coker, Magnolia Pet. 29	25
15-17-7e	Stewart, Mid-Cont. Pet. 25	70
14-17-8e	Johnson, Aztec Oil 6	20
17-17-8e	Wright, Shaffer O. & R. 1	281
31-15-8e	Sissie Jim, Tidal Oil 2	gas
2-14-8e	Davy, Crown Central Oil 2	30
4-14-8e	Brown, Simms Oil 1	dry
13-14-8e	Sewell, C. G. Tibbens 10	40
26-14-8e	Johnson, C. G. Tibbens 11	30
20-18-9e	Grayson, McCulloch Oil 1	dry
3-18-11	Leader, Gray Oil 3	125
6-18-12	Unallotted, Sunray Oil 6	30
3-17-9e	Simmons, The Texas Company 3	168
26-17-10	Tiger, Nowata O. & R. 1	dry
	Bucktrot, H. C. Wilson 2	dry
17-16-12	Barton, McCulloch Oil 1	dry
Wells completed		84
Production		12,264
Dry		19
Gas		5
Gas production		73,500,000

PAWNEE COUNTY

24-20-7e	Baker, Ora Steen 1	dry
25-20-7e	Brown, Burton et al 4	20
13-23-4e	School land, Magnolia Pet. 1	dry
4-23-5e	Krow, Magnolia Pet. 1	dry
13-21-7e	McIntyre, Minnehoma Oil 5	15
33-21-7e	Carter, Turner et al 1	dry
24-21-7e	Mullendore, Minnehoma Oil 7	75
31-21-8e	Anglin, J. B. Grieves 6	10
6-20-8e	George, Producer Consolidated Oil 1-A	25
	Cotton, Black et al 1-A	175
10-20-8e	Dunn, Selby O. & G. 1	2
18-20-8e	Turner, Shortgrass et al 1	dry
23-20-8e	Van Eman, Selby O. & G. 6	35
16-20-9e	Delp, J. H. Markham Jr. 1	dry
23-20-9e	Richards, Suppees et al 1	dry
23-20-7e	Yeager, Prairie O. & G. 1	dry
9-20-7e	Gillespie, Superior Oil 1	gas
5-22-3e	Wolfe, Champlin Refg. 1	120
5-23-5e	Phillips, Haley, Garber & Pulse 3	5
8-21-6e	Robertson, Dixie Oil 1	dry
9-20-6e	B. Fugate, Magnolia Pet. 2	10
2-20-8e	Arnold, Tidal Oil 8	dry
24-20-8e	Hennessey, McMahon Oil 7	dry
Wells completed		23
Production		492
Dry		11
Gas		1
Gas production		5,000,000

KAY COUNTY

8-27-1w Harris, Globe O. & R. 1 .... gas
9-27-1w Brown, Harris & Hahn 3 .... gas
28-25-1w Gardner, Gypsy Oil 1 8587
Siler, The Texas Company 2 ..1864
9-27-1w Geiger, Blackwell O. & G. 7 .. 125
17-27-1w Payne, Comar Oil 1 ..... dry
12-26-2w North, Marland Oil 2-A 50
13-25-2w School land, Marland Oil 1 ... dry
21-25-2w Turk, Carter Oil 5 40
5-28-1w Lawrence, Comar Oil 3 2125
4-27-1w Kelly, Ark. Fuel Oil Co. 5 200
8-27-1w Moore, Blackwell O. & G. 1.. 237
9-27-1w Brown, Harris & Hahn 4 .... gas
10-27-1w Patterson, Otstot, Hoag & McCann 1 ..... gas
34-25-1w Endicott, Pennok Oil 2 ..... dry
1-26-2w Smith "B," Prairie O. & G. 7.. 70
21-29-1w Priboth, Comar Oil 8 40
17-29-1e Dickerson, Marland Oil 1 .. 245
8-28-1w Horne, Comar Oil 1-W 183
5-27-1w Jamison, Blackwell O. & G. 2 360
27-27-1w Peckham, Dance et al 1 ..... dry
32-27-1w Chamber, O'Kansas Oil 1 .... dry
28-25-1w Mahoney, Wentz Oil 9 427
20-29-1w Day, Comar Oil 1 2038
5-28-1w McCullough, Comar Oil 3 51
Townsite, Braman Oil 1-A 330
Townsite, Braman Oil 2 50
31-27-2e Harris, Twin State Oil 1 27
1-26-2w Hockstater, Marland Oil 3-A.. 189
12-26-2w Hubbard, Marland Oil 6 140

Wells completed 30
Production 17,378
Dry 5
Gas 4
Gas production 70,000,000

PAYNE COUNTY

22-18-3e Nelson T. P. C. & O. Co. 1 ... 60
Nelson, T. P. C. & O. Co. 2 ... 100
23-18-3e Givens, Shaffer O. & R. 5... 250
26-18-3e Liston, Empire G. & F. 3 450
27-18-6e Culbertson, McGill et al 1 .... dry
11-19-6e Barry, A. A. Bailey & Superior 1 ..... dry
22-18-3e Berry, Mulberry Oil 1 ..... dry
Nelson, J. A. Hull 2 ..... dry
23-18-3e Derry, Deep Rock O. & G. 5... dry
26-18-3e Barth, Deep Rock O. & G. 4 .. 120
Waltman, T. C. M. Oil 1 350
31-18-4e Parmela, Superior Oil 1 ..... gas
14-19-4e Erwin, Prairie O. & G. 2 ..... dry
Erwin, Prairie O. & G. 3 ..... dry
23-19-4e Ellis, Prairie O. & G. 3 ..... dry
13-19-4e Stover, Roxana Pet. 2 ..... dry
Stover, Roxana Pet. 5 ..... dry
Stover, Roxana Pet. 6 ..... dry
23-19-4e Stover, Magnolia Pet. 1 ..... dry
24-19-4e Pleasants, Magnolia Pet. 3 .... dry
Pleasants, Magnolia Pet 4 ... dry
Pleasants, Magnolia Pet. 6 ... dry

Wells completed 22
Production 1330
Dry 15
Gas 1
Gas production 16,500,000

LINCOLN COUNTY

26-16-5e Rittenhouse, Flynn & Morgan 1 dry
8-15-6e Earp, Mid-Cont. Pet. 7 607
3-14-5e Belless, Magnolia Pet. 2 40
4-14-5e Thompson, Magnolia Pet. 4 ... 10
10-14-5e M. & F. Chapman, Magnolia Pet 2 105
35-15-5e Caves, Gypsy Oil 11 5
2-14-5e Tuttle, Carter Oil 8 50
Hopkins "C," The Texas Company 15
4-14-5e Strough, Pure Oil 2 75
11-14-5e Caves, Gypsy Oil 14 50
21-14-5e Deane, The Texas Company 1 55
36-15-4e Cull, Ruby et al 1 ..... dry
10-14-5e L. Chapman, Magnolia Pet. 2.. 115
35-15-5e A. Sporleder, Prairie O. & G. 2 50
A. Sporleder, Prairie O. & G. 4 50
8-14-5e Slack, Magnolia Pet. 1 14
11-14-5e Chapman, Magnolia Pet. 2 .... dry
35-15-5e A. Sproleder, The Prairie O. & G. 2 ..... dry

Wells completed 18
Production 1241
Dry 4

GARFIELD COUNTY

12-22-4w Wishard, Mid-Cont. Pet. 17 ... 36
12-22-4w School land, Mid-Cont. Pet. & Marland 63 973
24-22-4w Belveal, Healdton Pet. 6 4
18-22-3w Schroeder, Roxana Pet. 3-H..1132
Schroeder, Roxana Pet. 2-L... 305
Schroeder, Roxana Pet. 5-T... 215
Schroeder, Roxana Pet. 8-T.. 310
19-22-3w Crews, Crews Heirs 15-C ..... dry
Kisner (West) Sinclair Oil 30..1885
13-22-4w School land, Mid-Cont. Pet. & Marland 44 ..... dry
School land, Mid-Cont. & Marland 69 400
Walker (North), Sinclair Oil 56 336
18-22-3w Schroeder, Roxana Pet. 2-T ..1408
13-22-4w School land, Mid-Cont. & Marland 65 70
School land, Mid-Cont. & Marland 67 250
School land, Mid-Cont. & Marland 70 422
Walker (North), Sinclair Oil 23 1610
Walker (North), Sinclair Oil 47 890
Walker (North), Sinclair Oil 48 313
18-22-3w Schroeder, Roxana Pet. 4-L ... 488
Hartley, Sinclair Oil 38 445
Hartley, Sinclair Oil 41 120
13-22-4w School land, Mid-Cont. Pet. & Marland 66 747
Walker (N.), Sinclair Oil 15... dry
Walker (N.), Sinclair Oil 51.. 65
18-22-3w Schroeder, Roxana Pet. 10-W . dry
Hartley, Sinclair Oil 30 950
Hartley, Sinclair Oil 44 265
19-22-3w Kisner (E.), Sinclair Oil 16.. 50
15-23-5w Hennessey, Wilcox O. & G. 1.. dry
13-22-4w Walker (N.), Sinclair Oil 52 ..1407
24-22-4w Dively, Carter Oil 53 5
Beggs, Champlin Refg. 34 ... dry
18-22-3w Schroeder, Roxana Pet. 1-L .. 508
Hartley, Sinclair Oil 33 160
Hartley, Sinclair Oil 36 60

Wells completed 36
Production 15,828
Dry 6

STEPHENS AND COTTON COUNTIES

6-2n-8w Johnson, Hoffer Oil 1 ..... dry
7-2n-4w Simms, Green et al 1 ..... dry
31-1n-8w Heiser, Kinsey Law et al 3 ... dry
28-1s-8w Taliaferro, McAllister et al 1-A 65
11-2s-5w Martin, Magnolia Pet. 4 ..... dry
19-2n-4w Conner, Danciger Oil 1 ..... dry
20-1s-8w Brittian, J. R. McQueen 5 ... gas
28-1s-8w Springer, Winkler & McQueen 5 dry
12-2s-8w Fobb, Commercial Pet. 11 ... dry
34-2s-7w Yates, Hawks & Ware 1 ..... dry
12-3s-7w Porter, Harry Hanbury 1 .... dry
24-1n-9w McFatridge, W. M. Priddy 4 .. gas

Wells completed 12
Production 65
Dry 9
Gas 2
Gas production 9,000,000

JEFFERSON COUNTY

34-5s-6w Major, Ascott Oil 1 ..... dry
33-6s-5w Seay, A. C. Brown 6 110
Seay, Gypsy Oil 26 100
Seay Gypsy Oil 28 35
Seay, Gypsy Oil 29 80

Wells completed 5
Production 325
Dry 1

CARTER COUNTY

15-2s-2w Ed. & G. Cox, Magnolia Pet. 1 65
16-2s-2w May Cox, Magnolia Pet. 2 ... 30
8-3s-2w Fitzgerald, F. W. Merrick et al 1 7
28-5s-1e Westheimer, Amerada Pet. 15 .. 75
34-1s-3w Hernstadt, Gilmer 3 65
33-1s-3w Bumpass, Magnolia Pet. 2 ... gas
Lusk, Humble O. & R. 4 140
34-1s-3w Sikes, Schermerhorn et al 1 .. dry
27-2s-2w Noble, F. W. Merrick et al 3.. 25
8-3s-2w Moyer, Merrick-Cameron 7 ... 60
19-1s-3w Jordan, Humble O. & R. 4.... gas
34-1s-3w Fish, Magnolia Pet. 3 392
3-2s-3w Pruitt, Wirk Franklin & Prairie 3 1500
4-2s-3w Johnson, Humble O. & R. 1.. dry
22-2s-3w Kimbrall, Carter Oil 3 90
20-5s-1e Baptiste, Amerada Pet. 24 45
Farve,Amerada Pet. 28 25
34-1s-3w Gault, Simpson & Fell 1 40
Parnell, Simpson & Fell 2 90
4-2s-3w Suiter, Humble O. & R. 1 ... 242
32-2s-3w Feagin, Strum Drlg. Co. 2 ... 20
7-2s-2w Higgins, Coline Oil 5 72
26-3s-2w Westheimer, Shell et al 1 .... dry
16-4s-2w Shellenburg, Magnolia Pet. 12 75

Wells completed 24
Production 3058
Dry 3
Gas 2
Gas production 34,500,000

GRADY COUNTY

14-4n-8w Pendley, Magnolia Pet. 1 ... dry
3-4n-8w Dryden, Prairie O. & G. 3 ... gas
29-6n-7w Brown, Becker et al 1 ..... dry
23-5n-8w Edmundson, Stogner et al 3.. gas
14-4n-8w Cox, Carter Oil 1 ..... gas
8-3n-5w Horton, Carter Oil 1 ..... gas
27-3n-5w Polson, Grant et al 1 10
34-3n-5w Mitchell, Magnolia Pet. 1 330
23-5n-8w Edmundson, Skelly Oil 4 ..... gas
11-4n-8w Moss, Ted Harris 2 ..... gas
34-3n-5w Martin, Todd et al 1 25

Wells completed 11
Production 35
Dry 2
Gas 6
Gas production 70,500,000

NOWATA COUNTY

33-25-17 Phillips, Phillips & Milam 34 .. 1
11-26-15 Stout, A. J. Biddison 2 30
27-26-15 Krows, J. A. Stager 4 30
12-26-15 Whittey, John Murphy 7 12
11-25-14 Robins, J. J. Fitzstephens 1 ... dry
22-25-14 Deeringwater, Mid-Kansas O. & G. 1 ..... dry
22-28-14 Blakeslee & Co., Tidal Oil 36 5
Blakeslee & Co., Tidal Oil 37.. dry
11-26-15 Stout, A. J. Biddison 3 50
27-26-15 Baggett, J. A. Stager 4 5
20-26-15 Zelgar, J. J. Riner 7 7
4-25-16 Parish, John & C. P. Shertzer 9 dry
10-26-15 Wood, A. W. Biddison 1 ..... gas
27-26-15 Baggett, J. A. Stager 5 10
22-28-14 Blakeslee, Tidal Oil 38 ..... dry
6-28-15 Nave, M. B. Shufflin et al 1 ... gas
22-28-14 Westover, Tidal Oil 17 ..... dry

Wells completed 17
Production 150
Dry 6
Gas 2
Gas production 1,400,000

WASHINGTON COUNTY

18-28-13 Davis, Dewey Portland Cement Co. 2 2
5-25-14 Burchett, W. H. & C. F. Mosely 1 ..... dry
26-29-13 Sullivan, John C. Kuper 2 5
16-28-14 Shertzer, Midco Oil Corp. 12 .. dry
31-28-14 Knelsley, Natl. Oil & Dev. 2 .. 10
6-26-14 Brigton O. & G., Southwestern Oil Fields 17 15
17-24-14 Fee, Phillips Pet. 1 ..... dry
1-24-13 Adcocks, C. N. Bilby 1 ..... dry
7-25-14 Greenwood, W. H. & C. F. Mosley 11 10
18-25-14 Grindle, Amos Weimer & Grindle 7 10
14-24-12 Vinita & Chelsea Oil, Zola Oil 3 5
27-23-13 Riley, F. W. Worthington 3 ... dry
17-26-14 Higgins, Meridian Pet. 9 ..... dry
18-29-14 Williams, Canary & Canary 13.. 10
31-28-14 Knisley, Mancill & Ayling 6 .. 10
16-28-14 Shertzer, Midco Oil 13 ..... dry
Hendricks, Midco Oil 9 ..... dry
30-28-14 Woodell, Phillips Pet. 14 2
Woodell, Phillips Pet. 15 2

Wells completed 19
Production 81
Dry 8

ROGERS COUNTY

16-21-17 Cambell, Young & Murray 1.. dry
9-21-17 Lewis, H. I. Van Nostran et al 1 gas
McElyear, Weber & Quall O. & G. 2 ..... dry
20-24-16 Gilmore, Tidal Oil 6 1
Gilmore, Tidal Oil 7 1
Gilmore, Tidal Oil 8 1
Gilmore, Tidal Oil 9 1
29-24-17 Cochran, Frank Bushfield et al 1 ..... dry
Cochran, S. A. Lane 2 10
Cochran, S. A. Lane 3 5
Ballis, Frank Bushfield et al 4 25
6-19-17e Mayson, Ed Maxson 1 ..... dry
24-22-16 Bayless, Lee F. Ross 4 ..... dry
31-23-17 Andrews, Foyl O. & G. 2 ..... dry
32-14-17 Patrick, S. T. Mallory 10 20
29-24-17 Cochran, S. Alane 1 25

Wells completed 16
Production 89
Dry 6
Gas 1
Gas production 2,000,000

MISCELLANEOUS COUNTIES
NOBLE COUNTY

28-21-2w Snyder, Bu-Vi-Bar Pet. 1 ... dry
12-21-3e Sawyer, Ossenbeck & McMann 1 dry
22-21-2w Weeder, Magnolia Pet. 1 8
16-21-2w Hoffman, Magnolia Pet. 2 8

PITTSBURG COUNTY

2-7n-18e Mattage, Quinton O. & G. 1.. dry
19-7n- 7e Bassett, McAlister Gas Coke Co. 1 ..... dry

COMANCHE COUNTY

31-2n- 9w Indian, Wirt Franklin 1... dry
24-2n-10w Watson, Westheimer & Daube 1 140

GARVIN COUNTY

8-1n-3w Derdeyn, T. P. C. & O. Co. 3 75
17-1n-3w Derdeyn, The Texas Company 1-B 90
16-1n-3w Harris, Magnolia Pet. 8 10
17-1n-3w Derdeyn, The Texas Company 2-B 40
32-3n-3e Hensley, Cosden et al 1 ..... dry

McINTOSH COUNTY

12-11-14 Richards, Tiger Mtn. Oil 1 ... dry

CADDO COUNTY

10-5n-9w Bigley, Briscoe & Hall 1 ... 35
31-6n-9w Abernathy, English Drlg. Co. 4 26
Gafney, English Drlg. Co. 1... dry
12-5n-6w Wagner, Gorton Trust Co. 5.. 50

PONTOTOC COUNTY

11-4n-7e Norris, N. B. Haney 1 ..... dry
14-4n-7e Norris & Beck, Howarth O. & G. 1 ..... dry

SEQUOYAH COUNTY

24-10-25e Barrow, Le Flore Gas & Elec. Co. 1 ..... dry

Wells completed 21
Production 482
Dry 11

OSAGE COUNTY
Rigs

15-29-10 Keener O. & G. 18, 19.
1-27-5e Phillips Pet. 9.
12-27-5e Phillips Pet. 6.
7-27-6e Phillips Pet. 6.
20-26-6e Phillips Pet. 10, 11, 12.
21-26-6e Phillips Pet. 1.
Lewis Oil 9.
Sinclair Oil 3.
34-25-11 Devonian Oil 14.
5-24-8e Douglass Oil 1.
6-24-8e C. F. Lake et al 1.
19-24-8e Atlantic Prod. Co. 1.
21-24-8e Marland Oil 1.
33-24-8e Continental Oil 22.
32-24-9e Peters Pet. 1.
12-23-8e Twin State Oil 2.
6-23-9e Comar Oil 1.
7-23-9e Continental & Prairie 1.
23-23-10 Ray Branstetter 2.
25-22-7e Pure Oil 4.
13-22-10 American Oil & Dev. 22.
5-22-11 Kewanee Oil 15.
14-21-10 Lillystrand et al 4.
17-21-11 Oklahoma Nat. Gas Co. 714.
15-21-12 Tidal Oil 8.
5-20-11 Sand Springs Home 5.
21-25-6e Prairie O. & G. 12, 13.

Wells Drilling

21-29-9e Winona Oil 4.
27-28-6e Laurel O. & G. 1.
7-28-7e Tidal-Osage Gas 18.
12-28-11 Delmar Oil 1.
1-27-5e Phillips Pet. 8, 10.
2-27-5e Skelly Oil 3, 4.
12-27-5e Phillips Pet. 5, 7, 11, 12, 14, 15.
35-27-5e Mid-Kansas Oil 1.
7-27-6e Phillips Pet. 10, 14, 15, 16, 7, 10, 13.
21-27-12 J. W. Dyson 1.
6-26-5e Barnsdall Oil 1.
9-26-6e Carter Oil 13.
21-26-6e Phillips Pet. 2, 3, 9, 10, 11.
Lewis Oil 7, 8.
31-26-8e New England Oil 1.
32-26-11 Ohio-Osage Oil 2.
11-25-3e Comar Oil 1.
36-25-5e Gypsy Oil 1.
28-25-6e Phillips Pet. 4.
10-25-8e Carter Oil 1.
19-25-8e A. G. Oliphant 3.
30-25-8e Lewis Oil 3.
5-24-8e Amerada Pet. 1.
6-24-8e Carter Oil 2, 3.
13-24-8e The Texas Company 2.
20-24-9e Tidal Oil 1.
27-24-10 Winona Oil 4.
28-24-10 Peters Pet. 6.
1-23-8e Tidal-Osage Oil 1.
12-23-8e Twin State Oil 1.
Peters Pet. 10.
21-23-8e Barnsdall Oil 1.
Beacon Oil 25.
28-23-10 Mid-Continent Pet. 1.
35-23-10 Heggem & Davis 17.
35-22-8e Skelly & Moore 4.
36-22-8e Mid-Kansas Oil 2.
1-22-9e Sterling O. & G. 7.
8-22-9e Atlantic Oil Prod. 1.
21-22-9e Margay Oil 8.
18-22-10 Mid-Co Pet. 16.
34-22-10 Tidal-Osage Oil 19.
28-22-12 Kanupp et al 1.
11-21-7e Gypsy Oil 1.
7-21-9e W. S. Mitchell 3.
16-21-12 Commercial Drlg. Co. 9.
22-21-12 Commercial Drlg. Co. 3.
30-21-12 Barnsdall Oil 18.
Elliott & Smith 25, 26.
11-20-11 Sand Springs Home 3, 4.
31-20-11 Sand Springs Home 2.
5-20-12 Gillespie & Sons 6.
29-20-12 Ben C. Conner 1.
21-25-6e Prairie O. & G. 9, 10, 11.
2-25-6e Prairie O. & G. 1.
10-27-6e Prairie O. & G. 1.
36-24-11 Prairie O. & G. 1.

Shut Down

28-24-8e Axelrod et al 2.
8-23-10 Adlum et al 2.
22-23-10 Rex Pyramid Oil 1.
24-21-9e Devonian Oil 1.
Warwick Oil 1.
5-20-11 Pioneer Pet. 8.
Rigs, 31; wells drilling, 86; total, 117.

TULSA COUNTY
Rigs

23-19-10 Unallotted, W. E. Brown Oil 5.
4-19-12 Childers, P. Short 1-A.
1-17-13 Taylor, E. A. Hawley 1.
5-17-13 Porter, Suppees et al 1-A.
4-16-13 Stewart, Kewanee O. & G. 16.

Wells Drilling

10-19-10 Riverbed, The Texas Company 1.
14-19-10 Robinson, Holmes et al 1.
16-19-10 Doyle, Holmes et al 1-A.
23-19-10 Unallotted, W. E. Brown Oil 4.
Postoak, Red Bank Oil 3, 4.
33-19-10 Kiefer, Bu-Vi-Bar Pet. 1.
17-19-11 Smith, Hutt & Hutt 6.
19-19-11 Littleton, Commercial Drlg. Co. 5.
24-19-11 Unallotted, Sand Springs Home 1.
35-19-11 Inchoe, A. A. Thornton 1.
21-19-12 Sango, Sunray Oil 1-A.
29-19-12 Postoak, Continental Oil 1.
31-19-12 Keefer, Sunray Oil 2-A.
32-19-13 Orcutt, Shreve et al 10.
10-19-14 Norter, Linden et al 1.
1-18-12 Barnett, Sherman et al 1-A.
4-18-13 Roy, McAllister-Milburn 1.
18-18-14 Thatcher, Edwards et al 1.
11-17-13 Allen, Holmes et al 1.
22-17-13 Fox, Franchott & Mid-Cont. Pet. 1-A.
9-17-14 Perryman, H. & N. Oil 3.
3-16-12 Sanderson, S. W. Anthony 2.
4-16-13 Stewart, The Texas Company 6, 3.
5-16-13 Harry, Jolly-Ogg Oil 1-A.
Strip, J. L. Selby 1.
Berthoff, Thompson & Black 5.
18-16-14 McCoy, Shaffer O. & R. 5.
23-19-10 Boles, Pacific O. & G. 2.

Shut Down

4-19-14 Grayson, Johnson et al 2.
Berryhill, Ora Upp et al 1.
11-18-13 Simon, Hall & Hazen 1.
16-18-13 Rentle, L. C. Hivick 3.
13-16-12 Unallotted, Winemiller et al 1.
10-16-13 Sharp, Keener O & G. 6.
Rigs, 5; wells drilling, 36; total, 41.

OKMULGEE COUNTY
Rigs

26-16-12 Lowe, Baker et al 1.
17-15-11 Gibson, Shaffer O. & R. 8.
23-15-12 Peloche, Devonian Oil 2, 3.
4-14-12 Smith, Campbell et al 1.
19-14-12 Filly, J. M. Kessler 1.
25-13-11 Lewis, J. A. Swindler & Sons 8.
8-13-12 Morton, H. C. Marsey 8.
6-11-12 Hawkins, Moffitt & Slick 6.
7-11-12 Holmes, Moffitt et al 4.
32-11-12 Ashbury, Colorado O. & G. 2.
17-15-13 Gibson, A. E. Kirkland & Sons 3.
21-15-14 Garnett, Jolly-Ogg Oil et al 5.
32-14-13 Checote, Vincent & Stansberry 1.
1-14-14 Harris, E. A. Hutchinson 2.
8-14-15 Anderson, J. L. Powell 2.
29-13-14 Wiley, F. E. Cuseck et al 4-A.
35-13-14 Wilson, W. M. Hewitt 5.
31-11-13 Han, G. V. Luttes 1.
16-15-14 Bruner, The Texas Company 6, 7.

Wells Drilling

25-13-11 Tobler, Prairie O. & G. 2.
20-16-11 Pense, Irwin et al 1.
21-16-11 Marton, Sheridan Oil 1.
26-16-11 Houston, Gray Oil & Paraffin Oil 1-A.
34-16-11 Peters, Sheridan Oil 1.
20-16-12 Fee, Crider 1.
24-16-12 Tiger, Devonian Oil 7.
24-16-14 Grayson, W. H. Elson & Carter Oil 1.
34-16-14 Peters, The Texas Company 1.
17-15-11 Gibson, Shaffer O. & R. 7.
20-15-11 Gibson, Shaffer O. & R. 1.
5-15-12 Hickory, Henry Oil 1-A.
10-15-12 Bighead, T. A. Johnson 1-A.
19-15-12 Paxton, Slater et al 1.
35-15-12 Claunch, W. E. Hammon et al 3.
4-14-11 Lansford, Sidwell Drlg. Co. 1.
5-14-11 McIntosh, J. H. Rebold 4, 5.
7-14-11 Farmer, Holmes et al 1.
23-14-11 Crossland, Sherry et al 2.
11-14-12 Smith, Abbott, Dillard & Carter 1-A.
Gill, Kingwood Oil 1-A.
25-14-12 Unallotted, J. H. Rebold 1.
3-13-11 Anderson, Vincent et al 1.
28-13-11 Jones, The Texas Company 2.
32-13-11 Thomas, Denver P. & R. 8.
33-13-11 Roberts, Radcliff Oil 1-A.
5-13-12 Baker, Sheldon & Amerada 1.
11-13-12 Tilley, Rebold Drlg. Co. 2.
32-13-12 Unallotted, Amerada Pet. 2.
7-12-12 Wilson, Morton & Co. 7.
33-12-12 Been, Ralco Oil 7.
17-11-12 Summers, Decius 2.
7-15-13 Field, Devonian & Independent 9.
10-15-13 Hood, Red Bank Oil 1.
3-15-14 Rentie, Acta Oil 1.
Andrews, R. C. Vincent 1.
7-15-14 Brown, E. B. Grubbs 1.
8-15-14 Rowe, Hennessey et al 3.
10-15-14 Sells, W. B. Pine 1.
15-15-14 Francis, Selby & Hyre 6.
16-15-14 Alexander, Jolly-Ogg Oil 2.
Bruner, The Texas Company 5.
21-15-14 Garnett, Jolly-Ogg Oil et al 2.
Garnett, The Texas Company 14.
22-15-14 Severs, Twin State Oil 5.
7-14-13 Lacey, Sperry & Mills 5.
9-14-14 Stevens, W. A. George et al 12.
13-14-14 Rentie, Elm Oil 7.
14-14-14 Colbert, J. E. Wallace 3.
20-14-14 Sadler, F. E. Perkins 19.
22-14-14 Wright, Clarion Oil 7.
32-14-14 Rentie, Gardener et al 2.
Rentie, X-Ray Oil 3.
18-14-15 Rentie, C. Smith 9.
32-14-15 Dummit, J. R. Parks 5.
3-13-13 Foster, Sheldon Oil 1.
15-13-14 Doyle, Cal Cul Oil 5.
Doyle, Simms Oil 17.
21-13-14 Dunn, E. J. Lambert 1-A.
Dunn, Simms Oil 6.
28-13-14 Doyle, Columbus Drlg. Co. 13.
10-12-13 Manuel, W. B. Pine 4.
1-11-13 Brown, L. C. Wheeler 2.
10-11-13 Bruner, U. S. Zinc Co. 1.

Shut Down

21-16-14 Rowe, Atlas Oil 3.
24-16-14 Lowery, E. J. Lambert 1.
20-15-12 Adams, D. D. Mickelson 6.
24-15-12 Blair, C. E. Campbell 2.
14-13-11 Strip, Gibson, Zahniser et al 1.
36-13-12 Peters, G. C. Parker 1.
3-11-12 Calloway, B. Martin et al 1.
32-11-12 Ashbury, Colorado O. & G. 1.
19-14-13 Berryhill, McCulloch Oil 9.
14-14-14 Colbert, T. B. Slick 2.
16-13-13 Sanger, McCulloch Oil 4.
28-13-15 Hutton, O. T. Stout et al 2.
4-11-13 Hawkins, Tiger Mountain Oil 1.
13-11-13 Kanard, B. Morgan 6.
Rigs, 21; wells drilling, 79; total, 100.

SEMINOLE COUNTY
Rigs

33-11-8e Pierce, Continental Oil 9.
28-10-6e Baker, Amerada Pet. 1.
11-10-8e King, Gypsy Oil 1.
24-9n-6e James, Amerada Pet. 2.
James, I. T. I. Oil 7.
Pahardy, Mid-Cont. Pet. 2, 4.
26-9n-6e Grisso, Independent & Garland 4.
Bowlegs, I. T. I. Oil 1.
Grisso, Tidal Oil 1.
24-9n-6e Carter, Tidal Oil 1.
25-9n-6e Noble, Empire G. & F. 1.
Wilkins, Mid-Kansas Oil 1.
Tayche, Tidal Oil 1.
7-9n-8e Alexander, T. B. Slick 2, 3.

18-9n-8e Smith, Winona Oil 2.
15-8n-6e Goforth, I. T. I. Oil 2.
1-7n-6e Dickson, I. T. I. Oil 1.
8-7n-8e Dindy, Superior Oil 1.
5-6n-7e Vierson, Magnolia Pet. 1.
24-9n-6e Mayhue, Tidal Oil 4.

Wells Drilling

33-10-6e Kinkade, Prairie O. & G. 1.
33-11-8e Pierce, Mutual & Continental Oil 4.
26-10-6e Harjoche, Carter Oil 1.
33-10-6e Davis, Searight et al 3.
34-10-6e Grayson, Carter Oil 1.
Grayson, Mid-Cont. Pet. 1.
35-10-6e Harrison, Carter Oil 1.
4-10-8e Yarbro, Sinclair Oil 10.
8-10-8e Deer, Devonian Oil 2.
Willis, Gypsy Oil 8.
1-9n-5e Sango, F. J. Searight 1.
10-9n-5e Ingram, Barnsdall Oil 1.
Johnson, Magnolia Pet. 1.
Lena, Magnolia Pet. 1.
11-9n-5e Sparks, Magnolia Pet. 1.
14-9n-5e Winton, Barnsdall Oil 1.
14-9n-6e Rentie, Mid-Cont. Pet. 1.
15-9n-6e Noble, Tidal-Osage Oil 1.
23-9n-6e Rentie, Amerada Pet. 1.
24-9n-6e James, Amerada Pet. 1.
Carter, Barnsdall Oil 3.
Carter, Barnsdall Oil 4.
Carter, Gypsy Oil 1, 2.
James, I. T. I. Oil 2, 8.
Mayhue, Tidal Oil 3.
Mayhue, Tidal-Osage Oil 2.
28-9n-6e Grisso, Independent & Garland 1.
34-9n-6e Cudjo, Amerada Pet. 1.
15-9n-7e Jonah, Pure Oil 1.
17-9n-7e Warrior, Sinclair Oil 1.
18-9n-7e Goody, Magnolia Pet. 1.
20-9n-7e Ripper, Magnolia Pet. 1.
7-9n-8e McDaniel, Independent O. & G. 2.
Kidd, Independent, Holmes & Jarvis 1.
Cully, Mid-Cont. Pet. et al 2.
McDaniel, Plover Drlg. 4.
8-9n-8e Buckner, Jarvis, Holm & Atlantic 1.
18-9n-8e Jefferson, Gypsy Oil 1.
Bowlegs, Gypsy Oil 2.
Jefferson, Shaffer O. & R. 4
Peter, Southwestern Pet. 3, 4
Smith, Winona Oil 1.
13-8n-6e Harjo, I. T. I. Oil 1.
15-8n-6e Livingston, I. T. I. Oil 1.
17-8n-6e Mothoye, Magnolia Pet. 1.
26-8n-6e Sewell, I. T. I. Oil 1.
31-8n-6e Pullatka, Superior Oil 1.
33-8n-6e Brown, Gypsy Oil 1.
10-8n-7e Davis, Carter Oil 1.
14-8n-7e Carolina, Magnolia Pet. 5
Norval, Magnolia Pet. 2.
Jackson, T. B. Slick 4.
23-8n-7e Walker, Magnolia Pet. 1
Hanning, Magnolia Pet. 3.
25-8n-7e Buck, Magnolia Pet. 1.
26-8n-7e Mulliah, Magnolia Pet. 1
9-8n-8e Miller, T. Atkins et al 1.
15-8n-8e Sewell, Champlin & Bass 1
29-8n-8e Walker, Magnolia Pet. 3.
31-8n-8e Willis, Boggs & Sykes 6.
Salinda, W. R. Ramsey 2.
Sampson, W. R. Ramsey 2.
Amos, W. R. Ramsey 6.
33-8n-8e Grayson, Amerada Pet. 1.
32-8n-8e Grayson, Amerada Pet. 2, 3, 4.
Long "B", Dixie Oil 2, 4.
Long "A", Dixie Oil 4.
Long, Independent & Continental 2, 3.
Parker, Magnolia Pet. 1, 2.
33-8n-8e Scott, Magnolia Pet. 3, 4.
3-7n-6e Litka, Empire G. & F. 1.
9-7n-6e Litka, I. T. I. Oil 1.
22-7n-7e Jackson, Magnolia Pet. 1.
Davis, Transcontinental Oil 2
5-7n-8e Simon, Independent & Atlantic 3, 4.
Skinner, Magnolia Pet. 9, 10, 11.
6-7n-8e Knight "A", Dixie Oil 2, 3, 4.
Carolina, Homaokla Oil 3, 4, 5, 6, 7.
Gilstrap, Magnolia Pet. 2.
Hawkins, Magnolia Pet. 2.
Harbor, Magnolia Pet. 2.
Davis, Magnolia Pet. 3, 5.
33-6n-6e Christy, Palmetto Oil 1.
6-6n-8e Reed, Hoffer Oil 1.
24-5n-5e Nitley, Riverside O. & R. & Kinney 1.
10-9n-6e Noble, Superior Oil 1.

Shut Down

14-8n-7e Porter, Prairie O. & G. 1.
Davis, Gypsy Oil 1.
Rodman, Magnolia Pet. 1.
Jackson, T. B. Slick 3.
30-8n-8e Bowlegs, Gardener Pet. 1.
6-7n-8e Hawkins, Buttram et al 1.
10-11-8e Davis, Transcontinental Oil 1.
15-9n-6e Johnson, Gypsy Oil 1.
Rigs, 22; wells drilling, 113; total, 135.

OKFUSKEE COUNTY

Rigs

7-13-10 Micco, Cooper & Donnelly 1.
25-12-9e Leedy, T. A. Johnson 1
2-12-11 Sullivan, J. J. Deaner 1.
3-12-11 Morgan, Barnsdall Oil 4.
Morgan, McMahon Oil 2
10-12-11 Randall, Barnsdall Oil 4.
28-12-11 Unallotted, Josey Oil 1.
33-12-11 McCoy, Josey Oil 16.
35-11-9e Wind, Gilcrease Oil 2.
Harjo, Gypsy Oil 2.
4-11-10 Stidham, Moose & Daniels 1.
14-11-11 Ingram, Champlin Refg. 1.
15-11-11 Jacobs, Champlin Refg. 4.
4-10-11 Barnett, R. W. Vierson et al 1
10-12-11 Hook, Prairie O. & G. 1.

Wells Drilling

26-11-9e Collins, Prairie O. & G. 1.
23-13-7e Byrd, Sinclair Oil 1.
13-13-8e Wilson, Peerless O. & R. 1
17-12-7e Hennechuchee, Mid-Kansas Oil 1-A.
14-13-9e Callahan, Darby Pet. 2.
7-13-10 Taylor, Cooper & Donnelly 1.
27-12-10 Harjoche, The Texas Company 1
3-12-11 Morgan, Barnsdall Oil 3.
10-12-11 Randall, Phillips Pet. 2, 3.
13-12-11 Harjo, Amerada Pet. 15.
Sugar, Independent O. & G. 17
15-12-11 Henry, Champlin Refg. 3.
32-12-11 Hulsey, Josey Oil 1, 3, 4.
33-12-11 McCoy, Josey Oil 4, 13, 15.
2-11-9e Henderson, Lenox Oil 1.
35-11-9e Wind, Atlantic O. P. 1.
Harjo, Gypsy Oil 1.
Berryhill, Mid-Kansas O. & G. 1
36-11-9e Buck, Amerada Pet. 1.
Mecco, Sinclair Oil 2.
3-11-10 Stidham, Link Oil 1.
14-11-10 Buckley, Terrien & Balliere 1-A.
8-11-11 Mahardy, J. K. Leard et al 1.
19-11-11 Barnett, Riverland Oil 1.
23-11-11 Unallotted, Carter Oil 1.
Likowski, F. A. Havel 1-A.
25-11-11 Barnett, Carter Oil 2.
36-11-11 Holmes, W. L. Umburn 1.
16-10-9e Bruner, Independent O. & G. 1.
17-10-9e Carolina, McCulloch Oil 1.
21-10-9e Tecumseh, Kingwood Oil 1.
33-10-9e Barnett, Arkansas Fuel Oil 2.
15-10-10 Canard, Hobert Drlg. Co. 1.
26-10-10 Butler, Schrock & Jameson 1.
18-10-11 Simmer, Amerada Pet. 1.
19-10-11 Lockhart, Morgan, Flynn & Roxana Pet. 1.

Shut Down

3-12-10 Hivem, Alex Bays et al 1
8-12-10 Yarhola, Blakely et al 1.
17-12-10 Harrison, Amerada Pet. 2.
23-12-10 Harjo, Blakely et al 1.
10-12-11 Randall, Barnsdall Oil 3.
11-10-11 Hill, Lou Umburn 1.
21-10-11 Barnett, Lou Umburn & Future Dev. Co. 1.
15-10-12 Starr, Evans & Starr 1.
Rigs, 15; wells drilling, 49; total, 64.

HUGHES COUNTY

Rigs

5-7n-8e Garner, Dixie Oil 9.

Wells Drilling

13-9n-8e Paldo, Johnson, Ashe et al 1.
24-9n-8e Culver, T. Atkins et al 1.
1-9n-9e Bruin, Independent & Atlantic 4.
Cain, Minnehoma Oil 3.
3- 9-9e W. Alexander, Mid-Cont. Pet. 13.
4-9n-9e Alexander, Papoose Oil 10.
18-9n-9e King, Magnolia Pet. 1.
22-9n-9e Manley, Josey Oil 2.
26-9n-9e Davis, Independent O. & G. 2.
Kennedy, Independent O. & G. 3.
Harjo, Transcontinental Oil 6, 10.
27-9n-9e Long, Gypsy Oil 3.
35-9n-9e Harjo, Transcontinental Oil 2.
10-9n-10 Ana Lee, Detrick et al 1.
24-9n-10 Barnett, Roxana Pet. 1.
3-9n-11 Sutton "B", Tidal-Osage Oil 9.
3-8n-9e Harjo, J. E. Burke et al 1.
10-8n-9e Harnage, Sands Pet. 1.
22-8n-9e Long, McCulloch Oil 1.
28-8n-9e Reed, Independent & Margay 1.
Sewell, Magnolia Pet. 1.
29-8n-9e Carbogie, Papoose Oil 1.
17-8n-10 Carter, Robinson & Amerada Pet. 1.
18-8n-10 Diamond, Dixie Oil 1, 2.
21-8n-10 Garnett, E. R. Black 1.
4-8n-11 Wallace, Sorry & Schwartz 1.
32-8n-11 Bear, Johnson, Ashe et al 1.
5-7n-8e Frederick, Amerada Pet. 2-A.
Frederick, Amerada Pet. 5.
Frederick, Amerada Pet. 10, 12, 13.
Garner, Dixie Oil 2, 4, 5, 6, 7, 8.
Garner, Humble O. & R. 1, 2.
Foster, Independent & Sinclair 1.
Frederick, Magnolia Pet. 1, 2.
Garner, Magnolia Pet. 1, 2.
J. D. Garner, Magnolia Pet. 1.
14-7n-8e Jacobs, W. R. Ramsey 2.
28-7n-8e Harjo, Magnolia Pet. 1.
2-6n-8e Hardage, Humble O. & R. 1.

Shut Down

26-9n-9e Proctor, Independent & Darby Pet. 1.
26-9n-9e Harjo, Transcontinental 8.
27-9n-9e Long, Gypsy Oil 2.
29-8n-9e McCray, Magnolia Pet. 1.
18-8n-10 Diamond "C", Dixie Oil 3.
5-7n-8e Ferguson, J. K. D. Shaffer 1.
8-6n-10 Kite, Walton, Snyder & Marshall 1.
30-5n-10 Pearson, Greis & Kerr 2.
Rigs, 1; wells drilling, 59; total, 60.

MUSKOGEE AND WAGONER COUNTIES

Rigs

25-17-16 McIntosh, Sevreda Oil 1.
36-17-16 Bruner, M. E. Johnson 1.
28-14-16 Brown, Jolly-Ogg Oil 1-A.

Wells Drilling

21-18-16 Tiger, Eastern Oklahoma Pet. 1.
28-18-17 Childers, R. M. Lear 1.
11-17-16 Robins, R. E. Perry et al 1.
25-17-16 White, Schlingman 5.
26-17-16 Drew, W. B. Pine 3.
36-17-16 Barnett, Mitchell Oil 1.
19-17-18 Bradley, J. Nealy 3.
13-16-15 Littlehead, A. A. Landis 1.
11-16-16 Lewis, Devonian Oil 1.
19-16-19 Nave, Mission Oil & F. W. Isett 1.
9-15-15 Simmons, Crandall & Murta 2.
18-15-15 Ware, Wirick & King 3.
28-15-15 Manuel, Link Oil 1.
29-15-15 Morris, Cory & Anders 1.
30-15-15 Vanderslice, Culp et al 4.
17-15-17 Warrior, W. R. Sommerville 1.
1-14-17 Sango, T-O Pet. 7.
17-14-17 James, K. H. Pierce 2.
18-14-17 James, Peterson et al 6.
28-14-17 Dean, E. C. Dooley et al 2.
2-14-18 Cherry, Jolly-Ogg Oil 1.
1-14-19 Crittenden, C. M. Bradley et al 1.
2-16-14 Still, Little Ed Oil 14.

Shut Down

19-18-16 Moody, J. Stryker 2.
35-16-17 Marshall, Denton & Marshall 1.
20-13-16 London, Boomer Oil 1.
Rigs, 3; wells drilling, 26; total, 29.

CREEK COUNTY

Rigs

13-19-8e Peters, Burlengame & Sharp 10.
32-18-7e Drumright, Magnolia Pet. 1.
Drumright, Shaffer O. & R. 10.
21-17-8e Scruggs, Burk-Greis & Darby Pet. 1.
22-17-8e Mitchell, Transcontinental Oil 2.
27-17-8e Bruner, Southwestern Pet. 3.
20-15-8e Beaver, Skelly Oil 1-A.
11-14-8e White, Aztec Oil 4
12-14-8e McKan, Skelly Oil 15.
17-14-8e Cooper, Shaffer O. & R. 1.
26-14-8e Johnson, C. G. Tibbens 12.
3-19-9e Morgan, Holmes et al 4.
18-19-9e Clark, Roxana Pet. 1.
6-18-12 Sango, Sunray Oil et al 8.
3-17-9e Chisholm, Harwell et al 1.
Simmons, The Texas Company 4.
10-17-9e Bruce, Roxana Pet. 2.
Lindsey, Wilcox O. & G. 1.
14-17-9e Smith, G. & M. Oil 1.
22-17-9e Harjoche, T. P. C. & O. Co. 2.
Walker, Westland Oil 2.
11-17-10 Smith, O. M. Ireland 1.
13-17-10 Fulsom, Pontiac Oil 1.
Brink, Ted Ray Oil 1.
24-17-10 Dawson, Mid-Cont. Pet. 3.
Dawson, J. H. Wright 13.
Tahkaney, J. H. Wright 11.
30-17-11 Garald & Nichols, M. W. Evans 1.
7-16-9e Sango, W. R. Davis 1.
21-16-9e Hendrickson, Jackson & Wise 3.
32-16-9e Vaughn, Graham Oil 1.
30-16-9e Unallotted, C. G. Tibbens 32, 33.
32-15-9e Drake, C. G. Tibbens 1.
6-15-10 Allen, Rolland Oil 1.
36-15-10 Rogers, Scrugges & Carter Oil 1.
25-14-9e Tye, Wood Oil et al 1.
16-14-10 Bear, Atlantic O. P. 2.
20-14-10 Knight, Hall & Donnelly 2.
5-18-7e Rector, Prairie O. & G. 52.
32-18-7e Derrisaw, Magnolia Pet. 3.

Wells Drilling

21-17-7e Litchfield, Prairie O. & G. 40.
3-17-9e Hope "A", Prairie O. & G. 3, 4.
19-15-8e Roberts, Prairie O. & G. 1.
33-18-12 Alexander, Prairie O. & G. 14.
6-19-7e McElroy, Markham & Schoenfeldt 7.
15-19-7e Manuel, W. H. Skelly 1.
32-19-7e Richards, Magnolia Pet. 4.
3-19-8e Walker, Mannford Dev. Co. 1.
5-19-8e Maxey, Bartlett & Mann 2.
13-1918e Ross, Gled Oil 4.
Ross (W), Gled Oil 4.
Peters, Burlengame & Sharp 7, 8, 9.
Lowe, J. B. Grieves 6.
Weaver, The Texas Company 2.
24-19-8e Grayson, Grieves Oil 1.
1-18-7e Jack, Burnett et al 1.
5-18-7e Rector, Riverside O. & R. 1.
8-18-7e Yarhola, Riverside O. & R. 1.
12-18-7e Jones, Dixie Oil 1.
16-18-7e Coker, Magnolia Pet. 7.
18-18-7e Fisher, Shaffer O. & R. 13.
22-18-7e Wrightsman, R. E. Freeman & Tiger Oil 1-A.
15-17-7e Stewart, Mid-Cont. Pet. 2, 3.
Stewart, Mid-Cont. Pet. 26.
17-17-7e Tiger, Gibson & Baker 1-A.
22-17-7e Fife, Tidal Oil 4, 6.
11-17-8e Wyatt, Bu-Vi-Bar Pet. 1.
14-17-8e Tucker, Alvard & West 1.
22-17-8e Mitchell, Barnsdall Oil 3.
Johnson, Savoy Oil 6.
23-17-8e Walker, Savoy Oil 3.
26-17-8e Cobb, Barnsdall Oil 3.
27-17-8e Bigpond, Inter-Ocean & McCulloch 5.
Alec, T. B. Slick & Stover Drlg. Co. 3.
5-16-8e Roberts, Black Gold Oil 2.
9-16-8e Yardy, Margay Oil 4.
10-16-8e Myers, Slick & Kawfield 2.
23-16-8e Wilson, Dick B. Mason 5.
6-15-7e Wattie, Magnolia Pet. 1.
Steele, Pure Oil 2.
36-15-7e Tiger, R. J. Jennings 1.
22-15-8e Williams, C. G. Tibbens 1.
30-15-8e Benjamin, Lima O. & G. 2.
2-14-8e Ponds, Gypsy Oil 9.
Davy, J. W. Henry 4.
12-14-8e Ponds, Haskell Oil 6.
30-14-8e McBilbray, Black Gold Oil 1-A.
18-19-9e Smith, Roxana Pet. 1.
31-19-9e Barnett, Selby O. & G. 2.
19-18-9e Sherman, H. C. Bartlett 1.
29-18-9e Sier, J. A. Hull 1.
8-18-10 Fields, H. Sparks et al 1.
30-18-10 Marshall, Madden & Madden 1.
1-18-11 Land, Riverland Oil 1-A.
15-18-11 Snow, Redgraves et al 1.
18-18-11 Bruner, Posey Short et al 2.
22-18-11 Bruner, W. J. Cole 1.
4-18-12 Saunders, Devonian Oil 1.
5-18-12 Sizemore, Henson 2.
6-18-12 Townlot, Day Brothers 2-A.
Bigpond, Regal Oil 28.
Sango, Sunray Oil et al 7.
9-18-12 Yellowhead, C. G. Tibbens 9.
3-17-9e Simmons, The Texas Company 2.
21-17-9e Charcotenne, Wood & Farren 4.
24-17-9e Dice, McCulloch Oil et al 1.
31-17-9e Marshall, Gypsy Oil 1.
8-17-10 Pemberton, Independent & Turman 1.
10-17-10 Hay, Carpenter-Stover 1.
11-17-10 Unallotted, O. M. Irelan 1.
Wrightsman, Wilcox & Witten 3.
16-17-10 Fulsom, Chief Drlg. Co. et al 1.
19-17-10 Dickson, Independent O. & G. 2.
20-17-10 Wiley, F. C. Adams 2.
22-17-10 Gwin, Dillard et al 1.
24-17-10 Strip, Brooker & Warren 2.
Dawson, Mid-Cont. Pet. 1, 2.
Bucktrot, Pioneer Pet. 7, 8.
Dawson, J. H. Wright 14.
Tahkaney, J. H. Wright 9, 12.
25-17-10 Goody, O. M. Irelan 1.
32-17-10 Yellowhead, Skelly Oil 1.
8-17-11 Freeman, O. M. Irelan et al 7, 8.
16-17-11 Broadnox, Misener & Reesman 1.
17-17-11 Wacoche, Shaffer O. & G. 6.
29-17-11 Schmidt, Henry & Avers et al 1.
27-16-9e Strip, Shaffer O. & R. 1.
33-16-9e Vaughn, O'Rourke et al 2.
36-16-9e Allen, Williams & Bell 1.
8-16-10 Sheidan, Williams & Cole 1.
12-16-10 Unallotted, Sherry et al 1.
9-16-12 Penoke, Turner & Turner 4.
30-15-9e Foster, Skelly Oil 5.
Unallotted, C. G. Tibbens 1, 3, 27, 31.
1-15-10 Ashbury, H. C. Wilson 1.
36-14-9e Lampkins, Wood Oil 1.
9-14-9e Tiger, Johnson & Ash et al 1.
Kimble & Reading, McMann Oil 1.
16-14-10 Bear, Atlantic O. P. 1-A.
Reynolds, Atlantic O. P. 1.
Tiger, Atlantic O. P. 2.
17-14-10 McNevins, C. F. Noble 1.
20-14-10 Strip, T. B. Slick 2.
Scott, Wilcox O. & G. 13.
23-14-10 Scott, Plymouth Pet. 1.
25-14-10 Settle, Chief Drlg. Co. & Independent 1.
32-14-10 Unallotted, Empire G. & F. 2.
Walker, Mid-Cont. Pet. 6.
Jones, T. B. Slick 1.

Shut Down

30-18-8e Holman, J. C. Walters et al 1.
11-17-8e Watson, Bu-Vi-Bar Pet. 1.
31-15-8e Bigpond, Carter E. Davis 1-A.
27-18-10 Allen, Vaughn & Wheeler 6.
14-18-11 Tiger, O. N. White 1-A.
32-18-11 Frew, Cross et al 1.
4-17-10 Johns, McCulloch Oil 1.
34-17-11 Tiger, Overless et al 1-A.
12-16-10 Hughes, Shaffer O. & R. 1.
11-14-10 Webb, H. George et al 1.
Rigs, 41; wells drilling, 131; total, 172.

PAWNEE COUNTY

Rigs

22-23-4e Zoldoskie, Donahue & Carter Oil 4.
24-21-7e Mullendore, Minnehoma Oil 8, 9.
6-20-5e Babcock, Stack & Vaughn 1.
10-20-6e Wilson, Privett Drlg. Co. 1.
36-20-6e School land, Riverside O. & R. 1.
7-20-8e Childers, Minnehoma & Shelts 4.
18-20-4e Black, B. E. Kennedy 1.

Wells Drilling

10-20-8e McNeal, Prairie O. & G. 9.
30-23-3e Gilbert, Magnolia Pet. 1.
33-23-3e Miller, Watchorn O. & G. 15.
9-22-3e Arkeketa, Magnolia Pet. 3.
27-23-4e Brian, J. L. Donahue 1-A.
16-22-4e School land, Magnolia Pet. 1.
26-22-5e Redd, Bu-Vi-Bar Pet. 1.
35-22-6e Hays, Devonian Oil 1.
Miller, Devonian Oil 1.
Dobson, Devonian Oil 2.
1-21-6e Bryan, Independent O. & G. 1.
16-21-6e School land, 101 Ranch Oil 1.
29-21-7e Long, Garber & Pulse 1.
32-21-8e Sigon, Adamson C. O. & G. Co. 7.
28-20-5e Williamson, Magnolia Pet. 1.
32-20-5e Berry, Magnolia Pet. 2.
33-20-5e Pollock, Gypsy Oil 3, 4.
School land, "F", Marland & Mid-Cont. 1.
School land "Miner". Marland & Mid-Cont 1.
School land, No. 11, Marland & Mid-Cont Pet. 1.
School land "M", Marland & Mid-Cont. Pet. 2.
3-20-6e McCroskey, George Baker et al 1.
9-20-6e Privett, Magnolia Pet. 4.
15-20-6e Platt, Shaffer O. & R. 2.
16-20-6e Burgman, Jim Glenn Oil 4.
School land, Magnolia Pet. 5.
17-20-6e Baker, Magnolia Pet. 3.
19-20-6e White, Champlin Refg. Co. 1.
21-20-6e Freeman, Josey Oil 5.
22-20-6e Lesher, Fern Oil 3.
16-20-7e School land, Mid-Cont. Pet. 21.
27-20-7e Alleman, G. Smith 1.
7-20-8e Childers, Minnehoma & Shelts 2.
10-20-8e Mullendore, Sinclair Oil 11.
23-20-8e Van Eman, Selby O. & G. 7.

Shut Down

20-20-5e Goodchief, Champlin Refg. 1.
28-20-6e White, Davis Drlg. Co. 1.
4-20-7e Hallett Townsite, W. A. McCabe et al 1.
11-20-7e Rogers, Block & Carnahan 1-A.
27-20-9e Mitchell, Suppees & Abelcht 1.
Rigs, 8; wells drilling, 41; total, 49.

KAY COUNTY

Rigs

28-28-2e Huddleson, John Stark et al 1.
4-27-1w Kelly, Arkansas Fuel Oil 6.
8-27-1w Moore, Blackwell O. & G. 2.
21-26-1e Keathley, A. D. Morton et al 1.
21-25-1w Coyle, Philmack Oil 1.
5-27-1w Jameson, Blackwell O. & G. 3.

Wells Drilling

17-27-1w Boyce "B", Prairie O. & G. 1.
19-27-1w Hargraves, Prairie O. & G. 1.
1-28-2w Smith "A", Prairie O. & G. 7.
18-29-3w Atkinson, Mississippi Valley Oil 1
13-29-2w Olson, Marland Oil 1.
15-29-1w Hanzel, Harris & Hahn 1.
16-29-1w Brown, Comar Oil 1-W.
School land, Mid-Cont. Pet. 1-A.
20-29-1w Day, The Texas Company 2, 3.
21-29-1w Priboth, Comar Oil 5, 9-W.
Duncan, Comar Oil 10, 12.
16-29-1e School land, Wentz Oil Corp 2
17-29-1e Brockhouser, Vernon Oil 4.
25-29-1e Smith, Strosnyder et al 1.
4-28-2w Wood, Moore Oil 1.
20-28-2w Smith, Mississippi Valley Oil 1.
5-28-1w Biddle, Comar Oil 6-W.
Orr, Comar Oil 3-W.
McCullough, Comar Oil 1.
Bechtel, Comar Oil 1-W, 7-W.
Townsite, Braman Oil 3-W.
Townsite, Braman Oil 1.
8-28-1w Horne, Comar Oil 3.
Andrews, Wentz Oil Corp. 1.
27-28-1w Walker, Simms Pet. 1.
36-28-1w School land, Dewey & Hoffer 1
6-28-1e Wolfe, McComas et al 1.
11-28-1e Lowery, Okla. Northern O. & G. 1.
31-28-3e Street, Davis Drlg. Co. 1.
3-27-1w Moore, Arkansas Fuel Oil 1, 2.
Dowes, Otstot 1.
4-27-1w Kelly, Arkansas Fuel Oil 4.
Case, Polling & Denny 4.
Moore, Schouwald et al 1.
8-27-1w Jameson, Gypsy Oil 3.
Boggs, Tidal Oil 3.
9-27-1w Geiger, Blackwell O. & G. 8, 9, 6-A.
Burkholder, Polling & Denny 4.
Burkholder, The Texas Company 2.
10-27-1w Moore, Black Gold Oil 3.
16-27-1w Barr, Otstot et al 3.
19-27-1w Gaylor, Marland Oil 1-A.
31-27-1w Cade, Marland Oil 1.
28-27-1e Buessing, Ballentine et al 1.
3-27-2e Balzar, Mississippi Valley Oil 1.
26-27-2e Harper, Mummert et al 1.
1-26-2w Fitzgerald, Marland Oil 2-A.
12-26-2w North, Marland Oil 4, 6, 7.
28-26-1w Barclay, Tom Palmer et al 1.
32-26-2e McNell, Ponca Lee Oil 1.
28-25-1w Leegerote, Barnsdall Oil 1, 2, 3, Gardner, Gypsy Oil 2, 3, 4.
Becker, Skelly et al 2, 3, 4.
Siler, T. B. Slick 1, 3, 4
Mahoney, Wentz Oil Corp. 11, 12, 13, 14, 15.
29-25-1w Highley, Blackwell O. & G. 1.
32-25-1w Hack, Gypsy Oil 1.
33-25-1w School land, Mid-Cont. Pet. & Marland 10.
Smith, Gypsy Oil 1.
35-25-1w Endicott, T. B. Slick 7.
17-25-2e Arrow, Marland Oil 10-A.
18-25-2e Walkingsky, Marland Oil 1.

Shut Down

21-29-1w Harvell, Comar Oil 8.
30-29-1e Hennessey, Junction Oil 2.
5-28-1w Orr, Comar Oil 1.
McCullough, Comar Oil 5.
8-28-1w Horne, Comar Oil 2-W.
16-27-1w Slocum, Anolu Oil 3.
Barr, Manahan et al 2.
18-27-1w Johnson, Una Lee Oil 1.
6-26-1w Glasgow, National Union Oil 1.
15-25-1w McDaniel, Tonkawa Dev. Co. 1.
4-25-2e Foureyes, Marland Oil 10.
21-29-1w Priboth, Comar Oil 2.
5-28-1w Johnson, Comar Oil 1-W.
Rigs, 6; wells drilling, 96; total, 102.

PAYNE COUNTY

Rigs

5-19-5e Martin, Magnolia Pet. 1.
26-18-3e Barth, Deep Rock O. & G. 5.

Wells Drilling

14-19-4e Shannon, Prairie O. & G. 1.
Erwin, Prairie O. & G. 1.
22-20-3e Royester, Ossenbeck 1.
4-19-1w Kinneman, Reiter-Foster 1.
12-19-1w Combs, Tidal Oil 1.
3-19-3e Hall, Mid-Cont. Pet. 1.
13-19-4e Stover, Roxana Pet. 4.
36-19-4e School land, Magnolia Pet. 1.
8-19-5e Garr, Magnolia Pet. 4.
Hughes, Magnolia Pet. 1.
Hughes, Magnolia Pet. 1
10-19-5e Mulling, Pure Oil 2.
13-19-5e Crocket, Sinclair Oil 12.

26-19-5e Long, Josey Oil 5.
23-18-1e Tilber, Twin State Oil 1.
23-18-3e Ostrander, Deep Rock O. & G. 1.
Shannon, Deep Rock O. & G. 2, 3, 4
26-18-3e Morehead, Deep Rock O. & G. 1.
Liston, Empire G. & F. 1, 4, 5.
Waltman, T. C. M Oil 3, 4, 5
27-18-3e Murlin, Gypsy Oil 1.
10-18-4e Cole, Deep Rock O. & G. 1.
26-18-4e Broyles, New England O. & P. L. 3
1-18-5e Laughlin, Home Gas Co. 2.
7-18-5e Blue, Marland Oil 3.
8-18-6e Welch, Consolidated Drlg. Co. 1-A.
5-17-4e Sharrum, Mulberry Oil 4.
9-17-4e Payne, Magnolia Pet. 1.
Shut Down
2-20-2e Catts, Colorado O. & G. 1.
21-19-1w Lewis, Ponca O. & G. 1.
14-19-4e Shannon, Magnolia Pet. 1.
Stephenson, Mid-Cont. Pet. 1.
8-19-5e Garr, Magnolia Pet. 3.
1-18-5e Laughlin, Josey Oil 4.
Rigs, 2; wells drilling, 40; total, 42.

LINCOLN COUNTY
Rigs
34-17-2e Lukenbeal, Wentz Oil Corp. 1.
21-14-5e Love, Pure Oil 1.
22-14-5e Craig, The Texas Co. 1.
9-14-6e Teter, Mid-Cont. Pet. 1.
Wells Drilling
8-14-5e Martin, Prairie O. & G. 1.
8-15-6e Selby, Prairie O. & G. 1.
31-17-4e Scott, Roxana Pet. 1.
33-17-4e Griswald, Mid Kansas Oil 1
30-17-5e West, Carter Oil 1.
31-17-5e Cook, Shaffer O. & R. 1.
18-16-4e Morris, Olean Pet. 1.
5-16-5e Van Camp, T. P. C. & O. Co. 1.
35-16-6e Johnson, Madden & J. A. Hull 1.
25-15-3e Lillibridge, Wilcox O. & G. 1.
16-15-4e School land, Empire G. & F. 1.
33-15-5e Temming, Magnolia Pet. 1.
8-15-6e Hopewell, Gypsy Oil 1.
Owens, Magnolia Pet. 1, 2, 3.
Earp, Mid-Cont. Pet. 8, 9.
Hopewell, Phillips Pet. 3, 4.
Varner, Phillips Pet. 1.
16-15-6e School land, Sinclair Oil 1.
7-14-4e Norton, T. B. Slick 1.
3-14-5e Belless, Amerada Pet. 8.
4-14-5e Thompson, Magnolia Pet. 6.
10-14-5e Chapman, Magnolia Pet. 3.
Davenport townsite, Magnolia Pet. 1.
Patterson, Phillips Pet. 7.
11-14-5e Caves, Gypsy Oil 15.
Chapman, Magnolia Pet. 3.
Roberson, Southwestern Pet. 4.
27-14-5e Garrett, Sinclair Oil 1.
7-13-3e Ewing, Douglas Oil 1.
33-13-4e Williams, Phillips Pet. 1.
16-13-5e School land, Amerada Pet. 1.
1-12-5e Thompson, Independent & McCulloch 1.
13-12-6e Strip, Mid-Cont. Pet. 1.
Shut Down
34-15-5e A. E. Sproleder, Magnolia Pet. 3.
15-15-6e Hubbard, Johndahl 1.
8-12-5e Richardson, Barnsdall Oil 1.
Rigs, 4; wells drilling, 40; total, 44.

NOBLE COUNTY
Rigs
22-21-2w Ableidinger, Prairie O. & G. 1.
Wells Drilling
18-24-2w Coulter, D. W. Moore et al 1.
16-24-1w School land, Mid-Cont. Pet. 12, 13.
1-24-1e 101 Ranch, George Miller 1.
9-24-1e Miller, Independent et al 1.
15-23-2w Washburn, Sinclair Oil 1.
22-23-2w Brumfield Mid Co., Pet. 15.
1-22-2w Stephenson, K-D Oil 1.
18-22-2w Pfrimmer, Hartman & Skaer 1.
33-22-2w Burk, Elane Oil 1.
13-22-2e Tillman, Skelly & A. D. Krow 1.
15-21-2w Taylor, Magnolia & Bu-Vi-Bar 1.
Sams, Magnolia & Bu-Vi-Bar 3.
16-21-2w Hoffman, Red Bank Oil 1.
21-21-2w Reynolds, Magnolia & Bu-Vi-Var 1.
22-24-2w Kurby, Wilkins & Kors 1.
Shut Down
29-24-1w Reed, Mid Co. Pet Co. 6.
26-22-2w Schoop, Champlin Refg. Co. 1.
16-21-2w Hoffman, Magnolia Pet. 1.
Treman, Red Bank Oil 1.
7-21-1w Williams, R. L. Corley 1.
Rigs, 1; wells drilling, 21; total, 22.

GRANT COUNTY
Rigs
24-27-3w Birdston, Burns & Beasley 1.
Wells Drilling
6-28-3w Snyder, Otstot Dev. Co. 1.
19-28-3w Lehring, Wrightsman 1.
36-28-3w School land No. 32, Marland Oil 1.
6-27-3w Barnard, Flannigan & Dedman 1.
22-27-3w Lane, Blackwell O. & G. 2.
23-27-3w Martin, Kay O. & G. 3.
16-26-3w Sherrer, Flannigan & Dedman 1.
33-26-3w Muegge, Gypsy Oil 1.
22-25-4w Vallner, Cowden 2.
Shut Down
14-27-3w Howell, Western States 1.
22-27-3w Stewart, Western States 4-A.
23-27-3w Flood, Larutan Fuel Co. 1.
27-27-3w Lane, Western States Oil 1.
34-26-4w Royce, Brazill & Moses 1.
Rigs, 1; wells drilling, 14; total, 15.

GARFIELD COUNTY
Rigs
21-24-3w Disney, Failing & Lawson 1.
36-23-5w Nelson, Ostot et al 1.
36-22-4w Ed Kisner, Sinclair Oil 8.
18-22-3w Schroeder, Roxana Pet. 10-T.
19-22-3w Kisner, (E), Sinclair Oil 17.
Kisner (W), Sinclair Oil 32.
31-22-3w McLean, Chas. Knox 4.
11-21-4w Fee, Beeple et al 1.
Wells Drilling
32-24-5w Zalondek, Wilcox O. & G. 1.
16-24-4w Meyers, Sinclair Oil 1.
32-24-4w Brunkin, Shaffer-Gardner 1.
14-24-3w Gorusch, Sagar Oil 1.
34-24-3w Hayes, Roxana Pet. 1.
6-23-4w Chevelier, Haley, Garber & Pulse 1.
29-23-4w Bunker, Roxana Pet. 1.
31-23-4w Johnson, Bu-Vi-Bar Pet. 1.
19-23-3w Garber, Marland Oil 1.
13-22-4w School land, Mid-Cont. Pet. & Marland 6-A.
School land, Mid-Cont. Pet. & Marland 64.
Wolfe, Roxana Pet. 3.
Denker, Sinclair Oil 6.
Walker (N), Sinclair 25, 29-W, 43, 44, 45, 46, 50, 53, 54, 55, 57, 58, 59, 60, 61.
14-22-4w Dively, Sinclair Oil 5.
24-22-4w Belveal, Healdton Pet. 19, 20, 33
Belveal, Sinclair Oil 21.
36-22-4w Austin, Sinclair Oil 6.
Metcher, Sinclair Oil 16-A.
7-22-3w Lynds, Franchott 3.
18-22-3w Schroeder, Roxana Pet. 28, 11-L, 1-T, 6-T, 7-T, 9-T.
Hartley, Sinclair Oil 4, 26, 35, 37, 39, 40, 42, 43, 45, 46, 47, 48, 49, 50, 51.
Witney, Sinclair Oil 6.
19-22-3w Crews, Crews Heirs Oil 19.
Crews, Sinclair Oil 16.
Kisner (E), Sinclair Oil 15.
Kisner (W), Sinclair Oil 12, 27, 29, 31, 33, 34, 35, 36.
21-22-3w Allen, Champlin Refg. 2-A.
30-22-3w Burns, Sinclair Oil 1.
Campbell, Sinclair Oil 21.
L. Crews, Sinclair Oil 6.
Louise Crews, Sinclair Oil 13.
31-22-3w Windler, Sinclair Oil 11.
12-21-5w Smith, Tidal Oil 1.
5-21-3w Cain, Penders Pet. 2.
6-21-3w Woods, Imo Oil 1.
9-21-3w Bowers, Penders Pet. 1.
22-21-3w Detwiler, Slick, Harrington et al 1.
11-20-8w Secor, Garfield Buell et al 1.
2-20-5w Fee, Sinclair Oil 1.
9-20-4w Looman, Marland Oil 1.
12-20-4w Miller, Marland Oil 1.
16-20-4w School land, Mid-Continent Pet. & Marland 1.
1-22-4w Johnson, Prairie O. & G. 2.
12-22-4w Wishard, Prairie O. & G. 12.
6-21-3w Bostwick, Prairie O. & G. 1.
Shut Down
17-23-8w Dyche, Jack Reid et al 1.
26-23-7w Cox, Katherine Oil Synd. 1.
6-23-6w Hess, Weir & Wood 1.
35-23-3w Carter, Failing & Lawson 1.
3-22-5w Swinery, Ashby & Barr 1.
1-22-4w Seaman, Hopper et al 1.
13-22-4w School land, Mid-Cont. & Marland 46.
13-22-4w Wolfe, Roxana Pet. 4-W, 5-W.
Walker (N), Sinclair Oil 6.
24-22-4w Belveal, Sinclair Oil 25.
27-22-4w Peters, Hopper et al 1.
16-22-3w School land, Hopper-Chappell 1.
18-22-3w Schroeder, Roxana Pet. 13-W, 8-H.
Hartley, Sinclair Oil 6, 22.
2-21-7w Montgomery, Frank Frantz 1.
31-21-5w Vanderwork, E. A. Summers 1.
12-21-4w Schriver, Beople et al 1.
7-20-6w Semrad, O. O. Owens 1.
13-20-4w Faramel, Summers et al 1.
Rigs, 8; wells drilling 110; total, 118.

GRADY COUNTY
Rigs
31-10-8w Thompson, Hawkins & Young 1.
10-9n-6w Baker, Travis et al 1.
23-5n-8w Edmundson, Skelly Oil 5.
17-3n-5w Burkes, Marland & Joe Ray 1.
27-3n-5w White Eagle Poison, Carter Oil 2.
Cochran, Magnolia Pet. 2.
34-3n-5w National, Briscoe & Hall 1.
Mitchell, Magnolia Pet. 2.
Martin, Todd et al 2.
Wells Drilling
21-8n-7w Webb, Watchorn O. & G. 1.
23-5n-8w McCaughtry, Stogner et al 7.
27-5n-8w Chandler, American Drlg. Co. 1.
35-5n-8w Dryden, Magnolia Pet. 1.
10-5n-7w Kleeman, Badgett & Hughes 1.
26-4n-8w Hadley, Nicklos O. & D. 1.
31-4n-5w Anderson, Magnolia Pet. 1.
5-3n-5w Gardenshire, Carter Oil 1.
Dutton, Sinclair Oil 1.
21-3n-5w Eason-Kerans, Carter Oil 1.
Carter-Kerans, Carter Oil 1.
27-3n-5w Adair, Carter Oil 1.
Polson, Carter Oil 1, 2.
Adair, Critchlow et al 2.
28-3n-5w Cassie Kerans, Magnolia Pet. 1.
34-3n-5w Wham, Carter Oil.
Mitchell, Magnolia Pet. 1.
35-3n-5w Hildebrant, Carter Oil 1.
Shut Down
2-8n-8w Bray, John Schwartzfischer 1.
35-5n-8w Dryden, J. B. Nichols Oil 1.
15-5n-7w Null, Badgett & Hughes 1.
19-5n-7w Thomas, Gant & Arrowsmith 1-A.
Rigs, 9; wells drilling, 23; total, 32.

COMANCHE COUNTY
Rigs
24-2n-10w Cox, William Green 4.
24-2n-10w Watson, Westheimer & Daube 2.
20-2n- 9w Indian, Continental Oil 2.
Wells Drilling
2-4n-11w Haller, Garvin Drlg. Co. 2.
21-4n-10w Rowe, Mid-Kansas Oil 1.
32-4n-10w Ross, Cochran & Abernathy 1.
34-4n-10w Gambel, John Graham 2.
10-3n-10w Jennings, Magnolia Pet. 1.
24-2n-10w Cox, William Green 3.
Allen, Shaw & Rathke 1.
19-2n- 8w ————, Cherry, Couch & Hambro Oil 1.
Price, Magnolia Pet. 1.
Guthrie, Westheimer & Daube 1.
30-2n- 9w Hardy, Magnolia Pet. 2, 3.
29-1n-12w Bentley, Bentley et al 1.
5-1n-18w Neeley, P. W. Appleby, Jr. 1.
30-1s-13w Cox, Mid-Kansas Oil 1.
Shut Down
30-4n-10w Hinds, Clyde Becker 1.
35-4n- 9w Warehime, Daisey Bell Oil 1.
4-3n-10w Saunders, Cook & Granham 1.
10-2n-10w Spitler, Danciger Oil 1.
20-2n-10w School, Ashcraft et al 1.
Rigs, 3; wells drilling, 20; total, 23.

PONTOTOC AND GARVIN COUNTIES
Rigs
23-4n-1e McCurtain, Sinclair Oil 1.
17-4n-6e Phillips, Bryan et al 2.
25-3n-1w Paxton, Guy Fisher et al 1.
12-3n-1e Vaughn, Magnolia Pet. 1.
Wells Drilling
28-5n-5e Copeland, La Salle et al 1.
25-5n-6e Patterson, Gillette & Krueger 1.
35-3n-2e Franklin, T. P. C. & O. Co. 1.
18-3n-4e Wren, Carter Oil 1.
4-3n-6e Hunter, Ada Dev. Co. 1.
14-1n-3w Newberry, S. P. Smith 7.
16-1n-3w Harris, Magnolia Pet. 12.
17-1n-3w Derdeyn, Carter Oil 8.
Derdeyn, Mid-Cont. Pet. 4.
Derdeyn, The Texas Co. 13.
20-1n-3w Derdeyn, Markham et al 1.
31-1n-3w Bun, Magnolia Pet. 1.
Shut Down
28-4n-7e Faulkner, Hughes et al 3.
28-3n-4e Lloyd, O. F. Smith 1.
27-2n-1w Pool, Empire G. & F. 1.
Rigs, 4; wells drilling, 15; total, 19.

STEPHENS AND COTTON COUNTIES
Rigs
5-1n-9w Borovenski, Red Seal Refg. Co. 1.
24-1n-9w Brown, Gypsy Oil 5.
19-1n-8w Funk, C. E. Elzy 2.
28-1s-8w Taliaferro, McAllester et al 2.
30-1s-8w Brigham, Crump & Beard 2.
35-1s-8w Brigham, Crump & Beard 2.
9-1s-5w Morris, Carter Oil 1.
7-4s-8w Holley, Josey Oil & Griffity 1.
Wells Drilling
12-2n-5w Iserwood, Carter Oil 3.
14-2n-5w Truitt, Rogers et al 2.
10-2n-9w Waters, Homaokla Oil 1.
35-2n-9w Mercer, Hoffer Oil 1.
36-2n-9w School, Malernee 1.
25-2n-4w Gann, Gant et al 1.
31-2n-4w Jefferson, Lewis Clark Pet. & Montgomery 1.
25-1n-9w Harris, Magnolia Pet. 11.
19-1n-8w Funk, Ill-Okla Oil 1.
30-1n-8w Hardin, Carter Oil 7.
32-1n-5w Charleston, Gates Oil 1.
Charleston, Magnolia Pet. 2.
32-1s-10w Fink, Garvin & Urice 1-A.
25-1s-9w D. Russell, Magnolia Pet. 8.
P. Russell, Magnolia Pet. 1.
18-1s-8w Johnson, John Farrett 1-A.
20-1s-8w D. Bartley, Magnolia Pet. 11.
22-1s-8w Warner, Harry Hanbury 1.
27-1s-8w Taliaferro, Henry Hanbury 3.
Wilkinson, Pearce & Brown 5.
Schick, Walker Valley Oil 3.
28-1s-8w Taliaferro, Carter Oil 1.
Nelson, V. A. Kidney 2.
Taliaferro, McAllester et al 2-A.
29-1s-8w Stephens, Magnolia Pet. 2.
33-1s-8w Glass, Magnolia Pet. 5.
12-1s-5w Doak, M. L. Amster 1.
26-1s-5w Skelly, Skelly Oil 28.
34-1s-5w Ziegler, Magnolia Pet. 18.
2-1s-4w Goodwin, McBride et al 1.
2-2s-8w Gilworth, Pace et al 1-A.
3-2s-5w Harris, Magnolia Pet. 2, 3.
8-2s-4w Cobb, Magnolia Pet. 9.
34-4s-9w Hooper, Carry & Texhoma 1.
2-2n-5w Green, Carter Oil 2.
Shut Down
22-2n-4w Morris, F. Phillips & Barnsdall 1.
23-1n-9w Brown, Steve Linson 4.
21-1s-10w Johns, McBee & Heacock 1.
20-1s-8w Brittian, Malernee & Dunlap 2.
Brittian, Safety First Oil 8.
22-1s-8w Warner, Fisher Bros. 2.
28-1s-8w Voss, Guy Brown 4.
29-2s-7w Bristow, Womack 1-A.
12-4s-10w Cooper, W. B. Lindsey 1.
Rigs, 8; wells drilling, 45; total, 53.

JEFFERSON COUNTY
Rigs
33-6s-5w Seay, Gypsy Oil 30, 31.
14-7s-6w Smith, J. R. McCoy et al 1.
26-7s-6w Spain, Gypsy Oil 1.
Wells Drilling
5-4s-6w Hunton, Homaokla Oil 1.
33-6s-5w Seay, A. C. Brown 7.
19-7s-5w Alexander, Humble O. & R. 1.
1-7s-4w Cassidy, New England O. & P. L. 1.
Shut Down
13-4s-4w Hardin, Twin State Oil 1.
23-7s-7w Hayes, L. C. Hivick et al 1.
5-7s-5w Oscar Seay, Woodruff Bros. 1.
18-7s-5w James, Humble O. & R. 1.
25-7s-4w Black, Penders Pet. 1.
Rigs, 4; wells drilling, 9; total, 13.

CARTER COUNTY
Rigs
19-1s-3w Jordan, Humble O. & R. 5.
32-1s-3w Morrison, Magnolia Pet. 1.
33-1s-3w Bumpass, Magnolia Pet. 3, 5.
Lusk, Humble O. & R. 5.
Bumpass, Humble O. & R. 2.
34-1s-3w Hernstadt, Gilmer Oil 4.
Snyder, Westheimer 3.
3-2s-3w Richards, Humble O. & R. 1.
Reynolds, Mid-Cont. Pet. 1.
Smith, Wirt Franklin 1.
Pruitt, Wirt Franklin & Prairie 4, 7
Smith, Skelly Oil 2.
22-2s-3w Morris, Magnolia Pet. 1.
23-2s-3w E. Lohman, Magnolia Pet. 10.
J. Lohman, Magnolia Pet. 11.
8-2s-2w Pierce, Skelly Oil 3.
21-2s-2w Wilson, Magnolia Pet. 3.
20-5s-1e Criner, Amerada Pet. 9.
Wells Drilling
18-1s-3w Hardin, Magnolia Pet. 2.
N. Hardin, Magnolia Pet. 2.
19-1s-3w Winters, Magnolia Pet. 1-A.
31-1s-3w Moore, Magnolia Pet. 1.
33-1s-3w Bumpass, Magnolia Pet. 4, 6.
Bumpass, Cameron Refg. Co. et a. 1.
Bumpass, Humble O. & R. 1.
34-1s3w Hernstadt, Gilmer Oil 2.
McClish, Gypsy Oil 2, 3.
Snyder, Humble O. & R. 2, 3.
Fish, Magnolia Pet. 4, 5, 6, 7.
Newstadt, Magnolia Pet. 3.
Snyder, Magnolia Pet. 3.
Parnell, Simpson & Fell 3.
Snyder, Westheimer 2.
2-2s-3w Calvery, Schermerhorn 1.
3-2s-3w Lyles, Gypsy Oil 1, 2.
Adams, Magnolia Pet. 1.
A. Carpenter, Magnolia Pet. 1.
Pruitt, Wirt Franklin & Prairie 2, 5, 6.
Smith, Skelly Oil 1.
10-2s-3w Grimes, Wirt Franklin 1.
12-2s-3w Kennedy, Pure Oil 2.
15-2s-3w L. V. Carpenter, Mid-Cont. Pet. 1.
22-2s-3w Carpenter, C. R. Smith 1.
23-2s-3w J. Lohman, Magnolia Pet. 10.
M. Williams, Magnolia Pet. 1.
McClain, Magnolia Pet. 1.
Smith-Davis, C. R. Smith 1-A.
32-2s-3w Johnson, Sturm Drlg. Co. 1.
6-2s-2w Higgins, Coline Oil 6.
7-2s-2w Pierce, Coline Oil 9.
Higgins, Coline Oil 9.
Watkins, Iowa Oil 2.
Caughman, Roxana Pet. 1.
8-2s-2w Pierce, Carter Oil 2.
Higgins, Coline Oil 8.
Pierce, Skelly Oil 1, 2.
15-2s-2w Pierce, Magnolia Pet. 1.
C. Johnson, Magnolia Pet. 2.
16-2s-2w Higgins, Roxana Pet. 1-B.
Cox, Magnolia Pet. 1.
Wilson, Magnolia Pet. 2.
17-2s-2w Riley, Humble O. & R. 1.
Moore, Skelly Oil 1.
23-2s-2w Noble, Magnolia Pet. 1.
25-2s-2w McCoy, Hivick et al 1.
31-2s-2w Bennett, Hilltop Oil 14
8-3s-2w Watkins, Schermerhorn 4.
1-4s-3e Barnes, Humble O. & R. 1.
35-5s-1w Joy, Humble O. & R. 1.
3-5s-1e Dover, Schermerhorn et al 1.
20-5s-1e Baptiste, Amerada Pet. 25.
24-5s-1e Jelliff, Schermerhorn et al 1.
28-5s-1e Clay, Amerada Pet. 21.
Shut Down
19-1s-2w Morris, McGee 1.
22-2s-3w Calvery, Wirt Franklin 1.
7-2s-2w Watkins, Iowa Oil 1.
8-2s-2w Pierce, Skelly Oil 4.
22-4s-2w Dillard, Baker & Strawn 12.
13-5s-3w Beal, Wickenhiser 1.
Rigs, 20; wells drilling, 71; total, 91.

MISCELLANEOUS COUNTIES
Rigs
Harper County—
30-29-22w Unknown, D. T. Water 1.
Woodward County—
4-23-17w Nordyke, Diamond Drlg. Co. 1.
Logan County—
20-19- 4w McCullough, Roxana Pet. 1.
11-18- 3w Matthews, Santrock Drlg. Co. 1.
5-17- 1w Baker, Zingerie & Bailey 1.
Kingfisher County—
20-15- 8w Otis, Hoffman et al 1.
23-15- 5w Davidson, Reiter-Foster 1.
Oklahoma County—
7-14- 3w ————, J. V. Bailey 1.
17-14- 2w Lynn, Von Stein & Hagerling 1.
13-13- 1w Martin, E. A. Hawley & Rosser 1.
Cimarron County—
27-5n- 5e ————, Ramsey Bros. 1.
2-2n- 9e Smaltz, Fenton, Brookins & Flowers 1.
McIntosh County—
35-12n-15e Wolf, Gilcrease Oil 1.
Caddo County—
22-6n-10w Jacobs, English Drlg. Co. 1.
10-5n- 9w Paw Kune, Magnolia Pet. 6.
Marshall County—
24-5s- 5e Arbuckle, United Eight Oil 3.
Love County—
2-6s- 1e Anderson, Humble O. & R. 1.
Wells Drilling and Shut Down
(Shut down indicated by *)
Harper County—
14-25-22w Cooper, Hoffer Oil 1.
Ellis County—
32-24-24w Meehan, Utility O. & G. 1*.
Major County—
36-22-14w Cheyenne Basin, The Texas Co. 1*.
36-21-11w Gray, Frantz & Slick 1.
Woodward County —
25-21-21w Elmore, Sharon Oil 1.
34-20-20w ————, Small & Kennessey 1*.
Logan County—
33-19- 4w ————, Bryan & Emery 1*.
32-19- 3w Rogers, Carter Oil 1.
28-18- 4w Moore, Frnaklin Oil Assn. 1.
33-18- 3w Quier, Haley & Pioneer Pet. 1*.
28-17- 1e Berry, T. B. Slick 1.
28-16- 1w Lair, Blackford O. & G. 1.
24-15- 3w Amsey, W. R. Ramsey 1.
Dewey County—
7-18-15w Chronister, Myers 1*.
9-18-15w Perfect, Huckelby-McCoy 1*.
Kingfisher County—
12-18- 5w Robins, Marland Oil 1.
6-16- 7w Canfield, Pet. Eng. Core Drill Co. 1.
27-16- 6w Sturgeon, McKenna & Crawford 1.
17-15- 6w Creaves, Chi Oil & Nicholas 1*.
Blaine County—
21-15-10w Eklemier, Okoma Oil 1*.
Canadian County—
9-14- 6w Piatt, A. D. Spears 1*.
34-13- 9w Dawson, Thos. Revelle 1.
2-13- 8w Setter, Carroll & Zweicher 1*.
29-13- 5w Pazoureck, T. B. Slick & Ben Franks 1.
29-11- 7w Sanders, O. D. Jones 1*.
Oklahoma County—
15-14- 2w Myer, Red Seal Refg. Co. 1.
9-14- 1w Miller, Maxine Pet. 1.
10-12- 3w Edwards, Cromwell O. & G. 1.
Texas County—
32-5n-12e Hovey, Valerius & Prairie 1.
21-4n-14e Hovey, Wilcox O. & G. 1.
18-3n-12e Zea, Valerius O. & G. 1.
28-3n-13e Zea, Wilcox O. & G. 1.
9-3n-15e ————, Reiter-Foster 1.
10-2n-11e ————, Reiter-Foster 1.
23-2n-18e Graves, Connelly, Trommel & Danner 1.
4-1n-12e ————, Haley, Garber & Pulse 1*.
23-1n-19e ————, Connelly, Trommel & Danner 1.
Mayes County—
20-20-20 Longerier, M. C. Fore & F. R. Shepard 1.
8-20-19e Drew, J. L. Dixon 1.
McIntosh County—
2-12n-15e McIntosh, Beggs O. & R. 1*.
12-12-16e Love, J. A. Shepard et al 3.
Sequoyah County—
32-11-25e Miller, Sequoyah Gas Co. 1.
15-11-26e Hicks, Citizens Gas Co. 1.
Pittsburgh County—
32-9n-16e Smith, J. L. Pattison 1*.
8-2n-16e Wilkins, Baker & Hailey 1*.
Haskell County—
10-9n-18e Sanders, Marion Oil 1*.
Latimer County—
7-5n-18e Hunt, P. & F. Pet. 1.
Pottawatomie County—
26-11n-4e Kline, Sikes, Kilgore & Shaffer 1.
12-10- 3e Ives, Sikes, Kilgore & Shaffer 1.
25-10- 4e Madgett, McCulloch Oil 1.
28-10- 4e Toney, Central Natl. Oil 1*.
16-10- 5e School land, Clark Edwards et al 1*.
16-9n- 5e School land, Gypsy Oil 1.
3-8n-4e Kenyon, Tidal Osage Oil 1.
15-7n- 4e Standridge, Derby Pet. 1*.
19-7n- 4e Talley, Pierce Oil 1*.
20-7h- 5e Fyke, Magnolia Pet. 1.
10-6n- 2e McGahey, Davis Detrick et al 1.
20-6n- 4e Hibbard, Croxton & Wrightsman et al 1.
Beckham County—
24-9n-25w ————, W. H. Sheldon 1*.
21-8n-23w Roberts, W. D. Shedden 1*.
25-8n-22w McGee, W. R. Duke 1*.
Van Vector, Kadane et al 1*.
Caddo County—
31-6n- 9w Jones, Gladstone O. & R. Co. 2.
33-6n- 9w Ester, Briscoe & Hall 1.
29-5n-12w Galbreath, W. J. Hartley 1.
23-5n-11w ————, Abernathy et al 1.
5-5n- 9w Stevens, Magnolia Pet. 2.
11-5n- 9w Lacky, Briscoe & Hall 1.
Lacky, Lone Star Gas Co. 5.
12-5n- 9w Wagner, Gorton Trust Co. 6.
Tillman County—
13-1s-18w Snelling, Oasis Oil 1*.
1-5s-15w Riverbed, Tipton et al 1.
Kiowa County—
6-2s-16w ————, Landfair 1.
5-6n-18w Bonham, A. C. Varner.
Murray County—
4-2s- 3e Olson, Humble O. & R. 1.
Johnson County—
26-4s- 5e Chastain, Deese et al 1*.
Atoka County—
17-4s-11e Dabney, Hanson et al 1*.

Marshall County—
17-5s- 5e Sacra, Kennedy Drlg. Co. 1*.
21-5s- 5e Sacra, Gill et al 1.
24-5s- 5e Arbuckle, United Eight Oil 6.
Love County—
10-6s- 3w Laten, R. M. Boring et al 1*.
2-6s- 1e Garlock Schermerhorn 1.
7-6s- 2e Brown, Magnolia Pet. 1.
25-6s- 2e Dillard, Schermerhorn 1.
28-6s- 2e Fee, Westhelmer 1.
Rigs, 17; wells drilling, 86; total, 103.

KANSAS FIELDS

Summary of Wells Completed

County—	Comp.	Prod.	Dry	Gas
Anderson	44	2,461	5	0
Butler	33	1,525	20	0
Chautauqua and Elk	23	846	7	3
Cowley	14	2,163	5	0
Greenwood	85	8,245	18	0
Lyon	21	1,075	14	0
Montgomery	22	65	13	2
Miscellaneous	61	2,512	27	5
Total July	303	18,892	109	10
Total June	195	16,129	51	6
Difference	108	2,763	58	4

Summary of Rigs and Wells Drilling

County—	Rigs	Drg.	Ttl.
Butler	10	36	46
Chautauqua and Elk	2	13	15
Cowley	8	34	42
Greenwood	48	76	124
Kingman	1	11	12
Lyon	4	25	29
Montgomery	0	12	12
Rice	1	10	11
Sumner	1	20	21
Woodson	1	10	11
Miscellaneous	15	100	115
Total July	91	347	438
Total June	112	364	476
Difference	21	17	38

ANDERSON COUNTY

3-22-19 Frazier, John Vanhorn 12 25
34-21-19 Melville, J. T. Graham 14 35
29-22-19 Mullen, Welda Pet. 1 ..... dry
33-20-21 Cleveland, H. R. McGill et al 7 125
Kretchmer, H. R. McGill et al 15 85
7-21-21 Mulkey, Brady & Morrison 13.. 125
33-20-21 Cleveland, H. R. McGill et al 8 130
7-21-21 Diedel, Fleming & Bedford 5... 50
13-21-20 Ewing, Peerless Oil Co. of Kansas 21 50
Ewing "B," Peerless Oil Co. of Kansas 3 45
Ewing "B," Peerless Oil Co. of Kansas 4 150
28-21-20 Little, Monitor O. & G. 7 50
Little, Monitor O. & G. 8 50
Little, Monitor O. & G. 9 45
Crabb, Monitor O. & G. 1 45
13-21-20 Ewing, Peerless Oil Co. of Kansas 22 50
Ewing "B," Peerless Oil Co. of Kansas 5 80
7-21-21 Diedel, Fleming & Bedford 6.. 80
33-20-21 Kretchmer, H. R. McGill et al 6 20
Kretchmer, H. R. McGill et al 10 150
28-20-21 Little, Monitor O. & G. 10 50
Little, Monitor O. & G. 11 45
5-21-21 Rosell, Southwestern Pet. 1 .. dry
34-21-19 Melville, J. T. Graham 15 10
3-22-19 Frazier, John Vanhorn 15 40
35-21-19 Melville, J. T. Graham 15 ..... dry
28-20-21 McCrab, Monitor O. & G. 3 ... 90
McCrab, Monitor O. & G. 2 40
Little, Monitor O. & G. 13 35
33-20-21 Kretchmer, H. R. McGill et al 7 80
18-21-21 Cozier, Peerless Oil of Kans. 8 5
13-21-20 Ewing, Peerless Oil of Kansas 24 100
33-20-21 Kretchmer, McGill et al 12 80
Kretchmer, H. R. McGill et al 11 140
7-21-21 Diedel, Fleming & Bedford 1 .. 15
18-21-21 Ewing, Peerless Oil of Kans. 23 50
27-20-21 McCoy, Monitor O. & G. 1 .... dry
7-21-21 Johnson, Brady & Swanson 8.. 48
Johnson, Brady & Swanson 9.. 35
Johnson, Brady & Swanson 10 50
Johnson, Brady & Swanson 11 28
16-21-20 Hunley, Brown & Rowland 12 60
33-20-21 Scott, H. R. McGill et al 1 60
28-20-21 Little, Monitor O. & G. 14 ... dry

Wells completed 44
Production 2461
Dry 5

BUTLER COUNTY

27-26-7e Wilhite, White Eagle O. & R. 5 25
27-27-7e Kruse, Amerada Pet. 7 100
13-28-6e McCraig, Farr et al 1 ..... dry
34-29-4e Burch, Smith & Ash 1 ..... dry
25-24-6e Daley, Manhattan Oil 1 ..... dry
22-26-7e Collins, Liggett et al 1 ..... dry
27-26-7e Young, Empire G. & F. 4 40
Ellsworth, Phillips Pet. 2 ..... dry
Wilhite, White Eagle 6 25
16-26-8e Dickinson, Tidal & Great Southern Oil 34 40
36-27-6e Figge, Liggett et al 2 ..... dry
6-27-8e Lucas, Jno. Rogers 2 ..... dry
3-28-6e Kramer, Allison & Fitzwilliams 1 ..... dry
Blakeman, Johnson et al 1 280
Gibson, The Texas Company 1 dry
12-23-6e Sickles, Phillips Pet. ..... dry
19-23-8e Sturgeon, Tom Miller et al 1 .. dry
33-27-6e Clark, Neeley O. & G. 1 ..... dry
8-27-6e Dedrich, Richmond Drlg. Co. 1 15
16-27-6e Reynolds, Phillips Pet. 1 490
27-27-7e Truesdale, Dixie Oil 4 ..... dry
34-27-7e Bateman, Dixie Oil 1 ..... dry
3-28-6e Gibson, Phillips Pet. 1 40
30-26-8e Drum Bitler, Cowpuncher Oil 3 dry
22-27-7e Harris, Mid-Kansas Oil 2 150
9-26-5e Boyer, Empire G. & F. 19 5
8-26-6e Kimball, Kismet Oil 1 ..... dry
35-27-4e Starkey, Empire G. & F. 10... 165
11-27-6e Nixon, Kismet Oil 1 ..... dry
33-27-6e Schriver, H. H. Patton 1 ..... dry
23-27-7e Barnhill, Flack et al 2 150
27-27-7e Truesdale, Dixie Oil 5 ..... dry
2-28-6e McCollough, Mathews et al 1.. dry

Wells completed 33
Production 1525
Dry 20

CHATAUQUA AND ELK COUNTIES

21-32-11 McCarty, Robinson et al 1 ... dry
35-33-10 Moffett Bros., Ross & Brown ? ?
31-32-10 McNoun, Dahlgren, Harpst & Craver 1 10
1-32-10 Oliver, Pennok Oil 1 ..... gas
28-33-12 Lonsberry, Chas. E. Deloe et al 4 ..... dry
2-30-12 Willard, Theta Oil 2 ..... gas
22-31-10 Rorick, Gillespie 4 20
23-31-10 Webb, Theta Oil 3 20
11-29-11 Ebel, Watson et al 1 ..... dry
18-29-11 Nuttal, Selby O. & G. 1 ..... dry
14-31-10 Leffingwell, Union Gas Corp. 5 75
30-34-9e Townsend, Prairie O. & G. 1 .. 15
20-33-12 Conner, Prairie O. & G. 5 5
36-34-11 Hartzell, Prairie O. & G. 8 ... gas
5-33-9e Garr, Brouck et al 1 ..... dry
13-31-10 Webb, Pure Oil 9 5
23-31-10 Webb, Theta Oil 2 20
33-31-10 Webb, Landon et al 1 200
32-32-13 Dennison, Southwestern Oil 1 dry
3-30-9e Denton, Watchorn O. & G. 9 ... 30
13-31-10 Webb, Pure Oil 8 ..... dry
14-31-10 Webb, Union Gas Co. 13 350
22-31-10 Rorick, Gillespie 2 100

Wells completed 23
Production 846
Dry 7
Gas 2
Gas production 4,625,000

COWLEY COUNTY

31-30-6e Robbins, Lewis Oil 8 385
24-32-4e Lewis, J. A. Hull 3 25
16-32-5e Hunt, Phillips Pet. 1 ..... dry
15-30-4e Newton, Smith & Ash 1 ..... dry
6-31-6e Eastman, Southwestern Pet. 12 25
19-32-3e Carson, T. B. Slick 6 480
Waite, Carter Oil 9 100
25-32-4e McFadden, Buckeye Oil 3 100
36-33-4e Seacat, Roxana Pet. 1 ..... dry
15-32-4e School land, J. A. Hull 1 1000
28-31-4e Lewis, Trees Oil 3 100
9-33-3e Graham, Duffield et al 1 ..... dry
24-33-6e Sandstrum, Little Martha Oil 2 28
5-35-5e Sterling, Springstead & Overlease 1 ..... dry

Wells completed 14
Production 2163
Dry 5

GREENWOOD COUNTY

2-22-10 Bradfield, Syndicate Oil 1 ... 240
12-22-10 De Malorie, Davis, Haslett et al 18 150
11-22-11 Kipfer, Empire G. & F. 13 200
18-22-11 Clopton, Mid-Cont. Pet. 10 65
33-22-11 Hillard "B," Phillips Pet. 8 ... 65
4-22-12 Fankhouser, Empire G. & F. 2 450
Fankhouser "B," Simmons et al 8 150
11-23-9e Green, Sheedy et al 8 130
14-23-13 Shadel, Mid-Cont. Pet. 9 15
15-24-11 Short, Loy et al 1 ..... dry
6-25-9e Oleson, Lassen et al 1 25
19-25-9e Ladd, Mid-Kansas Oil 14 100
20-25-9e Ladd, Mid-Kansas Oil 9 70
9-28-11 Knoll, Owen-Osage Oil 1 .... dry
1-22-10 Fuller, Day et al 2 250
6-22-10 Atyeo, Empire G. & F. 8 355
12-22-10 De Malorie, Davis, Haslett et al 19 600
De Malorie "B," Manhattan Oil 4 100
20-22-10 Browning, Sinclair Oil 42 30
11-22-11 Hind, Empire G. & F. 8 175
33-22-11 Westcott, York State Oil 9 .. 60
4-22-12 Fankhouser, Empire G. & F. 3 125
Fankhouser, Simmons et al 6 "A" 150
Fankhouser "B," Simmons et al 3 150
19-22-13 Bell, Henderson & Holdren et al 1 ..... dry
8-23-11 Oliver, Pure Oil 4 75
10-23-11 Riding, Connell et al 1 ..... dry
17-23-11 McGilbrey, Darby et al 1 100
9-23-13 Inthrum, Haverhill Pet. 10 25
10-23-13 Souder, Theta Oil 13 20
15-23-13 Shadel, Mid-Cont. Pet. 8 20
1-24-9e Cartwright, Roth, Faurot & Manhattan 12 35
30-24-11 Wiggins, McGinnis et al 2 "D" 300
1-22-10 Fuller, Manhattan Oil 1 ..... dry
12-22-10 De Malorie, Davis, Haslett et al 20 200
11-23-9e Green, McGinnis et al 3 200
19-23-9e Morris, White Eagle & Phillips Pet. 1 100
10-23-10 Smith, Roth, Faurot & Phillips Pet. 1 25
8-23-11 Oliver, Texas Company & Simmons 2 30
9-23-11 Tiffany, Simmons et al 4 .. 200
16-23-11 Fogle, The Texas Company 1 .. 25
15-23-13 Shadel, Tidal Oil 9 75
1 24-9e Marshall, Ark. Fuel Oil 15..... dry
27-24-13 Story, Skelly Oil 1 60
13-25-8e Welch, Roth & Faurot 1 ..... dry
8-27-10 Neubracht, Morgan et al 1 .. dry
6-22-10 Altyeo, Empire G. & F. 1 ... 75
Atyeo, Kanson Oil 4 120
8-22-10 Pixlee, Mid-Kansas Oil 4 40
14-22-11 K'llison, Empire G. & F. 8... 50
Fromme, Empire G. & F. 10 .. 100
32-22-11 DeMalorie "A," York State Oil 8 150
26-23-8e Mosby, Phillips Pet. 5 30
15-23-9e Green, Skelly Oil 3 200
17-23-9e Morris, Paul et al 1 ..... dry
27-23-10 Thrall "B," Roth, Faurot & Manhattan Oil 8 ..... dry
16-23-11 Edwards, Manhattan & Phillips 1 5
10-23-12 Inthrum, Connell et al 1 .... dry
30-24-11 Wiggins "B," McGinnis et al 5 200
7-24-12 Thrall, Enterprise Dev. Co. 2.. dry
2-26-8e Stevenson, Tidal Oil 11 40
17-27-11 Essick, Mohawk O. & G. 1 ... dry
1-22-10 Fuller, Day et al 3 400
Fuller, Syndicate Oil 3 200
2-22-10 Bradfield, Syndicate Oil 2 150
6-22-10 Atyeo, Empire G. & F. 10... 260
12-22-10 Austin, White Eagle et al 4 ... 125
29-22-10 Prather, The Texas Company 10 75
18-22-11 Clopton, Simmons et al 2.... 75
32-22-11 De Malorie "C," York State Oil 11 125
2-22-12 Kusman, Miss. Valley Oil 1 .. dry
4-22-12 Fankhouser, Empire G. & F. 4.. 120
Frankhouser, Fisher, Lauck et al 4 20
Frankhouser "B," Simmons et al 9 150
9-22-12 Holderman, Simmons et al 3 .. 100
27-22-13 Miller, Braden Bros. & Derby 6 40
3-23-9e Noler, Manhattan Oil 1 ... dry
19-23-9e Morris, Empire G. & F. 5 ... 75
Morris, Manhattan Oil 7..... 25
19-24-11 Freeman, Manhattan & Phillips 2 ..... dry
19-25-11 Brookover, Fisher, Lauck et al 1 ..... dry
27-26-9e Duke, Smith & Wahn 1 50
21-26-10 Edwards, Spencer et al 1 .... dry
12-22-10 Warrensburg, Phillips Pet. 7.. dry
1-24-9e Cartwright, Roth, Faurot and Manhattan Oil 13 40

Wells completed 85
Production 8245
Dry 18

LYON COUNTY

21-16-10 Frontiman, Ramsey et al 1.... dry
11-18-12 Rednoor, Abel, Finney et al 1 ..... dry
20-18-13 Price, Double A Oil 1 ..... dry
21-18-13 Fuller, Watchorn O. & G. 1... dry
7-21-10 Richards, Sheedy et al 1 ..... dry
24-21-10 Barfinger, McCollough et al 1 200
30-21-10 Jones, Transcontinental Oil 1 dry
Atyeo, Transcontinental Oil 4 150
31-21-10 Atyeo, "A," Transcontinental Oil 4 60
11-19-12 Hunter, Derby Oil et al 1 ..... dry
31-21-10 Atyeo, Sheedy et al 9 290
27-18-11 Baker, Markham et al 1 .... dry
5-19-11 Parker, Culp et al 1 ..... dry
7-20-11 James, Wynd & Sinclair Oil 1 dry
19-21-10 Hughes, Sheedy et al 1 ..... dry
31-21-10 Atyeo, Sheedy te al 8 100
Atyeo, Sheedy et al 10 200
18-21-12 Welch, Parkening et al 1 ... dry
4-20-11 Lewis, Connell et al 1 ..... dry
22-20-12 Welch, Connell et al 1 ..... dry
30-21-10 Atyeo, Transcontinental Oil 8 .. 75

Wells completed 21
Production 1075
Dry 14

MONTGOMERY COUNTY

14-35-14 Louthum, J. D. Canary et al 1 dry
2-35-14 Hamilton, Bradford-Roper et al 1 ..... dry
7-34-14 Kincaid, Brownson Lesse Co. 11 7
12-34-13 Dalby, A. L. Glover 14 ..... dry
Dalby, A. L. Glover 15 ..... dry
19-34-15 Dobson, Amherst Oil 7 ..... dry
34-34-14 Kamps, B. D. Donnelly et al 1 dry
7-34-17 Raney, H. H. Whampler 3 ... 5
8-34-17 Barber, Jesse Graham 15 20
15-32-15 Kreinhagen, Beeler et al 2 ... gas
Dwyer, Hatfield & Beeler 2 ... dry
Kreinhagen, Beeler et al 3... gas
4-33-15 Robinson, Jno. Lindberg et al 5 ..... dry
18-34-14 Michael, King & Myers 5 ..... dry
12-34-13 Dalby, A. L. Glover 16 ..... dry
18-34-13 Gilmore, King & Myers 4 2
7-34-17 Barney, H. H. Whampler 4 ... 5
8-34-17 Carl, Van Vleck & Graham 7 .. 25
15-32-15 Carr, Beeler et al 1 ..... dry
Dwyer, Hatfield et al 3 ..... dry
30-33-14 Huffman, E. A. Butt et al 5 .. 1
5-34-14 Allen, H. J. Critchlow 10 ..... dry

Wells completed 22
Production 65
Dry 1
Gas 2
Gas production 3,500,000

MISCELLANEOUS COUNTIES

Allen County—
27-25-21 Eartwood, T. H. Harris 1 ... dry
Hamilton, T. H. Harris 1 ... gas
28-25-21 Anderson, Harold F. Johnson 5 3
Deer, Harold F. Johnson 2 .... gas
16-26-20 Hibbs, A. A. Ackerman 14 .... gas
16-26-21 Gay, Harrison Engr. & Const. Co. 15 14
Chase County—
36-22-9e Shambaugh, Mid-Kansas Oil 3 135
16-20-7e Nichols, Vickers Pet. 1 ..... dry
24-22-8e Eastman, Skelly Oil 1 ..... dry
15-20-9e Johnson, Phillips Pet. 1 .... dry
Coffey County—
29120-17 Pierson, Connell et al 1 ... dry
Franklin County—
19-15-18 Barnhill, Howard et al 1 ... dry
Kingman County—
15-27-7w Herman, T. B. Slick 1 ..... dry
16-27-7w Richardson, Carter Oil 2 70
25-27-7w Wilkinson, Allison & Fitzwilliams 1 ..... dry
Lane County—
11-18-27w Dickinson, Richards Refg. Co. 1 ..... dry
Labette County—
2-33-17 Terharre, Labette Pet. 1 8
34-32-17 Rogers, L. R. Oakleaf et al 1 8
Linn County—
22-20-21 Mitchler, Southwestern Pet. 1 dry
24-20-21 McGinnis, Southwestern Pet. 1 gas
10-21-21 Hamilton, Tidal Oil 1 ..... dry
Osage County—
3-17-17 Blank, Hazlett, Davis et al 1 dry
14-16-16 Kraft, McMahon, Lenord et al 1 dry
Osborn County—
10- 7-12w Turner, Beasley 1 ..... dry
9-10-14w Boulbey, Knight et al 1 ..... dry
Rice County—
35-20-6w Welch, Wilcox O. & G. 1 .... dry
34-20-6w Libby, The Prairie O. & G. 1.. 90
34-20-6w Wood, Prairie O. & G. 1 ... dry
Russell County—
32-11-15w Booth, Snowden & McSweeney 3 200
17-12-15w Munsell, Valerius O. & G. 2 .. 120
Oswald-Valerius, Valerius O. & G. 17 48
30-12-15w Austin, Mid-West Refg. 1 ... 17
Sedgwick County—
7-27- 1e Custer, Chastain & Chastain 1 dry
Sumner County—
27-34-2e Schwartz, Marland Oil 1 .... dry
17-32-2e Miller, W. Phillips & Roxana 1 775
8-30-2w Lotta, Meridian Gas & Power Co. 1 ..... dry
27-34-2e Spain, Marland Oil 1 ..... dry
25-31-2e Churchill, Roxana Pet. 1 500
24-32-2e Holt, Sinclair Oil 1 50
21-33-2e Rutter, Roxana Pet. 1 60
Woodson County—
19-25-15e Lewis, Blevens et al 1 ..... dry
23-23-13 Hesler, Marland & Christy 10 40
23-26-14 Town, Peerless O. & R. 5 .. 150
Lauber, McCollough et al 3 .. 150
Wilson County—
1-30-15 Miskell, Fall River Gas Co. 1.. 15
34-27-16 Marple, Frank Minister et al 2 dry
Steveson, Frank Minister et al 1 ..... dry
1-30-15 Miskell, Fall River Gas Co. 2.. dry
Neosho County—
30-27-19 Breiner, J. S. Winkler 7 5
15-28-18 Flottman, Wells & Breyfogle 5 15
30-27-19 Bruner, J. S. Winkler 5 5
29-28-20 Bryant, Penn Kans. O. & G. 1 .. gas
15-28-18 Flottman, Wells & Breyfogle 6 10
30-27-19 Breiner, J. S. Winkler 6 5
Ottawa County—
4-18-21 Roseberry, J. A. Vanhorn 3 .. 10
17-18-21 Needham, L. H. Wentz 8 10
10-16-21 Finch, D. Kelly 21 3
Finch, D. Kelly 22 4
Bourbon County—
21-25-21 Duggan, Bert Featherline et al 10 2
Marion County—
17-21-4 Waner, National Refg. Co. 5.. dry
19-21-5 Griffith, A. Holmquest & Liggett 1 ..... dry

Wells completed 61
Production 2612
Dry 27
Gas 5
Gas production 4,580,000

BUTLER COUNTY

Rigs
17-26-5e Koogler, Empire G. & F. 72.
30-26-6e McClure, Washabaugh, Forsker et al 1.
16-26-8e Dickinson, Tidal & Gt. Southern 35.
16-27-6e Blankinship, Phillips Pet. 2.
Reynolds, Phillips Pet. 2.
17-27-6e Rose, Richmond Drlg. Co. 1.
14-28-3e Showalter, Irwin et al 1.
30-28-7e Jones, Herron et al 1.
19-29-4e Owens, Hartman & Skaer 1.
21-29-4e Holcomb, E. Wilcox et al 1.
Wells Drilling
33-27-7e Farner, Prairie O. & G. 1.
34-25-5e Geddis, Connell et al 1.
23-26-3e Brown, Gypsy Oil 1
35-26-5e Bisagno, Sitran et al 7.
27-26-7e Young, Empire G. & F. 5.
25-27-4e Skaer, Magnolia Pet. 5
26-27-4e Safford, Safford et al 8.
35-27-4e Skaer, Empire G. & F. 16.
14-27-5e Zeiset, H. H. Patton 1.
21-27-5e Brower, Holl et al 1.
19-27-6e Boellinger, Hoyt et al 2.
27-27-6e Sterns, Derby Oil et al 1.
34-27-6e Schriver, Magnolia Pet. 1.
7-27-7e Lill, The Texas Company 1.
12-27-7e Sewards, White Eagle et al 1.
19-27-7e Stebbins, Connell, Sheldon et al 1.
22-27-7e Barnhill, Sinclair Oil 5.
23-27-7e Harris, Mid-Kansas Oil 2.
25-27-7e La Fort, Sheldon, Connell et al 1.
27-27-7e Tobler, Empire G. & F. 3.
28-27-7e Iobe, Manhattan Oil Corp. 6.
20-28-4e Kirkpatrick, Empire G. & F. 12.
29-28-4e Love, Empire G. & F. 31.
3-28-6e Kramer, Allison & Fitzwilliams 3.
Blakeman, Johnson et al 2.
Gilson, Markham et al 1.
Gilson, Shaver and Sutter 1.
20-28-6e Pettit, Magnolia Pet. 2. 3.
7-29-4e Holcomb, Producers Pet. 1.
28-29-6e Steinhoff, Gied Oil 2.
28-29-8e Bull, Roth & Co. 1.
Wells Shut Down
30-23-7e Swiverly, Templeman, Frantz et al 1.
16-28-6e Cotton, Magnolia Pet. 1.
17-28-6e Pettet, Phillips Pet. 1.
12-29-6e Keneyon, Tobin et al 1.
Rigs, 10; Drlg., 36. Total, 46.

CHAUTAUQUA AND ELK COUNTIES

Rigs
34-29-9e Denton, Denton Bros. 15.
20-31-11 La Ville, Gillespie 1.
Wells Drilling
13-29-8e Hanna, Roth & Co. 10.
4-29-9e Britton, McCollough & Talbot 1.
17-29-10 Taylor, Ark. Fuel Oil 2.
3-31-8e Denton, Minnehoma Oil 1.
27-31-10 Marshall, Theta Oil 1.
Murphy, Theta Oil 1.
34-31-10 Walker, Landon et al 1.
35-34-9e Bibybee, The Prairie O. & G. 1.
26-24-11 McClure, Prairie O. & G. 14.
Wells Shut Down
11-32-10 Jeaneret, Griffeth-Strueb Oil 1.
31-32-10 McNown, Foster Oil, Harpst & Craver 1.
33-32-11 Burch, Skow Bros. 1.
7-33-10 Briggs, Noble O. & G. 1.
Rigs, 2; wells drilling, 13. Total, 15.

COWLEY COUNTY

Rigs
21-31-4e Goodrich, Twin State Oil 1.
13-32-4e Bishop, Gypsy Oil 1.
16-31-7e Clover, Cosden et al 1.
15-32-4e Graham, Marland Oil 3.
24-32-4e Lewis, J. A. Hull 4.
7-32-5e Crosby, Ark. Fuel Oil 5.
17-34-2e Baird, Shawver et al 1.
20-34-2e Stutz, Wilt & Shaver 1.
Wells Drilling
15-30-4e Newton, Shawver & Sutter 2.
14-30-6e Hulmes, Grey, Hewey et al 1.
31-30-6e Robbins, Lewis Oil 9.
10-31-3e Shaffer, Benedum & Trees 6.
35-31-3e Wilson, Ark. Fuel Oil 1.
20-31-5e Sincley, Roth & Faurot 1.
29-31-5e Wickliffe, Roth, Faurot et al 1.
7-31-6e Eastman, Foster & Deal 1.
19-32-3e Waite, Carter Oil 10.
20-32-3e Carson, T. B. Slick 1. 2.
12-32-4e Brant, Ark. Fuel Oil 1.
13-32-4e Leirman, Marland Oil 2.
Rockwell, Marland Oil 6.
15-32-4e School land, J. A. Hull 2. 3.
Wallace, J. A. Hull 1. 2.
Graham, Marland Oil 1.
School land, Marland Oil 1.
Wallace, Tidal & Skelly 1.
24-32-4e Shannon, Gypsy Oil 10.
19-32-5e Cavitt, Duffield et al 1.
Bartlow, J. A. Hull 4.
30-32-5e Carlisle, Lewis Oil 2.
9-33-3e Swope, T. B. Slick 1.
28-33-3e Caldwell, W. Phillips & Marland 12.
4-33-7e Reynolds, Forrester ete al 1.
7-33-7e Riding, Brown Bros. 1.
18-33-7e Smith, Doric Oil 1.
24-34-6e Day, S. H. E. Pet. 2.
Wells Shut Down
7-30-6e White, Branson et al 1.
4-31-5e Elliott, Boxer et al 1.
15-34-4e Pollock, Brunnell et al 1.
Rigs, 8; wells drilling, 34. Total, 42.

GREENWOOD COUNTY

Rigs
1-22-10 Fuller, Day et al 4.
1-22-10 Fuller, Syndicate Oil 5.
6-22-10 Atyeo, Empire G. & F. 12.
11-22-10 Green, Phillips Pet. 2.
12-22-10 De Malorie, Davis, Haslett et al 21.
Warrensburg, Phillips Pet. 8.
20-22-10 Browning, Sinclair Oil 41, 46, 47.
Prather "C," Skelly Oil 1.
29-22-10 Prather, The Texas Co. 9.
Prather, Tidal Oil 25.
14-22-11 Fromme, Empire G. & F. 11. 12.
32-22-11 De Malorie "C," York State Oil 6.
4-22-12 Fankhouser, Empire G. & F. 6.
Fankhouser, Fisher, Lauck et al 5.
Fankhouser, Simmons et al 10.
5-22-12 Chandler, Phillips Pet. 3.
9-22-12 Holderman, Simmons et a l 5.
Holderman, Titus et al 1.
20-22-12 Freeman, Simmons et al 1.
8-22-13 Tatum, Enterprise Dev. Co. 1.
10-22-13 Hubbard, Callahan et al 1.
28-22-13 Barnard, Callahan, Ainsworth et al 1.
29-22-13 Luther, Simmons & Rhodes 1.

12-23-8e McDowell, Manhattan Oil 1.
15-23-9e Green, Skelly Oil 4, 5.
29-23-10 Thrall, Empire G. & F. 5.
30-23-10 Martindale, Roth, Faurot & Manhattan 1.
32-23-10 Thrall, Roth, Faurot & Manhattan 58.
33-23-10 Wells, Roth, Faurot & Manhattan Oil 1.
19-23-11 Edwards, Troxell et al 1.
15-23-13 Shadel, Mid-Cont. Pet. 10.
1-24-9e Cartwright, Roth, Faurot & Manhattan Oil 14.
9-24-10 Dales, Vickers Pet. 1.
16-24-10 Mathews, Flack et al 1.
13-24-11 Ott, Stark et al 1.
30-24-11 Wiggins "A," McGinnis et al 6.
Wiggins "B," McGinnis et al 8.
13-25-8e Welch, Roth & Faurot 2.
19-25-9e Ladd, Mid-Kansas Oil 5.
30-25-9e Ladd, Mid-Kansas Oil 8.
23-25-11 Hall, Skelly Oil 1.
23-26-9e Birkett, Continental Oil 3.
5-26-10 Badger, Miss. Valley Oil 1.
9-26-10 Brookover, Paul & Parker 1.

Wells Drilling

1-23-9e Shambaugh "B," Prairie O. & G. 1.
1-22-10 Fuller, Syndicate Oil 4.
6-22-10 Atyeo, Empire G. & F. 9, 11.
Jones, Empire G. & F. 3.
8-22-10 Pixlee, Mid-Kansas Oil 5.
Pixlee, Theta Oil 13.
11-22-10 Green, Phillips Pet. 1.
19-22-10 Browning, Sinclair Oil 44.
20-22-10 Browning, Sinclair Oil 43, 45.
30-22-10 Nichols, Tidal Oil 4.
9-22-11 Minot, Orlando Pet. et al 1.
11-22-11 Hind, Empire G. & F. 9.
Kipfer, Empire G. & F. 14.
13-22-11 Davis, White Drlg. Co. 1.
14-22-11 Duby, Empire G. & F. 6.
18-22-11 Clopton, Mid-Cont. 11.
29-22-11 Ingram, O'Neil et al 1.
32-22-11 O'Neil, York State Oil 14.
33-22-11 Westcott, York State Oil 10.
4-22-12 Fankhouser, Empire G. & F. 5.
9-22-12 Holderman, Simmons et al 1.
24-23-8e Scott "C," Manhattan Oil 3.
25-23-8e Craft, Manhattan Oil & Phillips Pet. 10.
Scott "B," Manhattan Oil & Phillips Pet. 2, 3.
36-23-8e Burk, The Texas Co. 1.
1-23-9e Shambaugh, White Eagle O. & R. 1.
10-23-9e Green, Manhattan Oil 25.
11-23-9e Green, McGinnis et al 4.
15-23-9e Teter, Skelly Oil 7, 4.
16-23-9e Teter, Empire G. & F. 35.
23-23-9e Teter, Emerald Oil 1.
26-23-9e Marshall, Rhodes & Abels 1.
28-23-10 Thrall, Roth, Faurot et al 57.
29-23-10 Thrall, Empire G. & F. 3.
8-23-11 Oliver, Pure Oil 5.
Oliver, The Texas Co. & Simmons 3.
9-23-11 Tiffany, Simmons et al 5.
17-23-11 McGilvrey, Darby et al 2.
26-23-11 Ellis, Mid-Cont. Pet. 1.
Ellis, Simmons & Amerada Pet. 3.
29-23-11 Wilson, Sharpless et al 1.
4-23-13 Inthrum, Haverill Pet. 11.
9-23-13 Inthrum, Haverhill Pet. 12.
27-23-13 Schindler, Mission Oil 8.
28-23-13 Dehlinger "A," Mid-Cont. Pet. 6.
29-23-13 Dehlinger "B," Mid-Cont. Pet. 12.
19-24-10 Nixon, Sullivan et al 1.
23-24-10 Edwards, John Edwards et al 1.
25-24-10 Nixon, Davis, O'Flaharty et al 1.
Nixon, Phillips Pet. 1.
36-24-10 Lozier, Manhattan Oil 1.
19-24-11 Freeman, Manhattan & Phillips 3.
Lindamood, Manhattan Oil et al 3.
Lindamood, White Eagle, Ritchey & Moore 6.
30-24-11 Wiggins "B," McGinnis et al 6, 7.
33-24-11 Garrison, Peerless O. & R. Co. 1.
34-24-12 Warford, Troxell et al 1.
20-25-9e Ladd, Mid-Kansas Oil 1.
30-25-9e Hoffman, Mid-Kansas Oil 8.
27-26-9e Hodgson, Hiatt, Dunham et al 1.
7-26-10 Edwards, Swift et al 1.
31-26-10 Hodgson, Griffith & Gilbreth 1.
7-27-9e Roley, Empire G. & F. 2.
33-27-9e Beaumont, Roth & Farout 1.
25-27-10 Hanson, Marshall et al 1.

Shut Down

4-22-12 Fankhouser "B," Simmons et al 2.
19-24-11 Lindamood, Manhattan et al 2.
6-24-12 Shook, Syndicate Oil 2.
24-26-9e Weirshing, Beacon Oil 5.
16-23-13 Burris, Parrish et al 1.
Rigs, 48; wells drilling, 76; total, 124.

KINGMAN COUNTY
Rigs

16-27-7w Richardson, Carter Oil 3.

Wells Drilling

9-27-6w Hemple, Phillips Pet. 1.
34-27-7w Graber, Fleeger et al 2.
22-28-5w Linholm, Harwood & Winters 1.
11-28-6w Pagett, Marland Oil 1.
13-28-7w Greenleaf, Fleeger et al 1.
35-28-7w Yoeman, Cassoday Oil 1.
16-28-8w McKenna, Phillips Pet. 1.
21-29-9w Schultz, Phillips Pet. 1.
35-30-9w Keiming, Vickers & Stearns 1.

Shut Down

31-28-5w Beshare, Crawford & McKenna 1.
4-30-6w Richards, Ozark Drlg. Co. 1.
Rigs, 1; wells drilling, 11; total, 12.

LYON COUNTY
Rigs

25-19-10 Bibermyer, Culp et al 1.
25-21-10 Bradfield, McCollough et al 2.
30-21-10 Atyeo, Transcontinental Oil 6.
31-21-10 Atyeo, Sheedy et al 13.

Wells Drilling

33-17-11 Carr, Wilcox O. & G. 1.
35-19-11 Jones, Wilson et al 1.
9-19-12 Morris, Leeward Pet. 1.
25-19-12 Cook, Bucher et al 1.
8-19-13 Jacob, Double A Oil 1.
25-20-12 Stratton, Gasche & Balliere 1.
24-21-10 Barfinger, Pryor & Lockhart Dev. 1.
Rossillion, Super Six Oil 3.
30-21-10 Jones, Theta Oil 2, 3.
Atyeo, Transcontinental Oil 7, 9.
31-21-10 Atyeo "A," Transcontinental Oil 5, 6, 7.
Atyeo "B," Transcontinental Oil 1.
Atyeo, Sheedy et al 11, 12.
19-21-11 Rossillion, Emerald Oil 1.
2-21-12 Brewer, Ballard, Burnes et al 1.
29-21-12 Tile, Swartz et al 1.
30-21-12 Hurd, Landon & Phillips Pet. 1.
36-21-12 McCollough, Gasche & Balliere 1.

Shut Down

13-17-12 Burnap, Jones, Wilhite et al 1.
32-18-10 Bender, Ritchey & Moore 1.
Rigs, 4; wells drilling, 25; total, 29.

MONTGOMERY COUNTY
Wells Drilling

28-34-14 Owens, Phillips Pet. 1.

Shut Down

21-31-14 Faler, Ramler et al 1.
21-32-13 Neiman, Dunn et al 1.
36-32-14 Dryhead, Irish et al 1.
5-32-16 Brinkman, Cowell et al 1.
35-32-16 Wyberger, Bloom et al 1.
29-32-11 Hellum, Earl & Overlease 1.
35-32-16 Felts, Voice & Tabor 1.
4-33-17 Hall, Townsend et al 1.
30-33-17 Bunk, Brown & Wolf 1.
12-36-16 Wilson, Tex-O-Kan Oil 1.
4-35-17 Walker, Gallowye & Roberts 1.
Rigs, 0; wells drilling, 12; total, 12.

RICE COUNTY
Rigs

2-19-10w Hollscher, Sparta Drlg. Co. 1.

Wells Drilling

35-20-6w Welch, Prairie O. & G. 3.
1-19-7w Deed, Pryor & Lockhart 1.
21-20-6w Barnes, Stamey et al 1.
26-20-6w Johansen, Midland Oil 1.
35-20-6w Welch, Phillips Pet. 1.
2-21-6w Walstein, Phillips Pet. 1.
Walstein, Youker et al 2.
3-21-6w Miller, Walstein-Miller Synd. 1.
17-21-6w Brothers, Streeter & Stearns 1.

Shut Down

11-21-6w Swanson, Youker et al 1.
Rigs, 1; wells drilling, 10; total, 11.

SUMNER COUNTY
Rigs

19-30-4w Kelly, Champlin O. & R. 1.

Wells Drilling

22-31-2e Clodfelter, Roxana Pet. 1.
25-31-2e Mason, Roxana Pet. 1.
Rutter, Roxana Pet. 1.
Van Sickle, Roxana Pet. 1.
3-32-2e Rice, Stallings et al 1.
8-32-2e Reese, Marland Oil 1.
17-32-2e Morris, I. T. I. Oil 1.
Owens, Roxana Pet. 1.
Hartzell, Twin State Oil 1.
9-33-2e Wright, Marland Oil 1.
24-33-2e Holt, Sinclair Oil 2.
22-33-2w McDaniels, National Union Oil 1.
18-35-1e Hamilton, Amerada Pet. 1.
13-35-2w Gilbreth, Broadhurst et al 1.
34-34-2e Olson, Prairie O. & G. 2.

Shut Down

35-31-4w Stewart, Sparta Drlg. Co. 1.
24-33-2e Holt, Phillips Pet. 3.
23-34-2w Douglas, Gypsy Oil 1.
15-30-2w Hunt, Meridian O. & G. 1.
36-30-2w Riner, Cosden O. & G. 1.
Rigs, 1; wells drilling, 20; total, 21.

WOODSON COUNTY
Rigs

23-26-14 Lauck, Peerless O. & R. 3.

Wells Drilling

30-23-14 Collins, Little Seven Oil 1.
6-24-14 Wintersheid, Pure Oil 11.
27-24-14 Weide, Fields, Cross et al 1.
35-24-13 Johnson, Altomite O. & G. 1.
33-25-14 Colborn, Stover Drlg. Co. 1.
23-26-14 Town, Peerless O. & R. 4.
23-26-14 Lauber, McCollough et al 2.

Shut Down

13-25-14 Hunt, Alters et al 1.
13-26-14 Daniels, Burford & Brimm 1.
24-26-14 Lauber, McCollough et al 1.
Rigs, 1; wells drilling, 10; total, 11.

MISCELLANEOUS
Rigs

Chase County—
9-21-8e Sharp, Crandall, Murta et al 1.
36-22-7e Frew, Taylor et al 1.
Coffey County—
2-23-13 Luthi, McDougal et al 1.
Comanche County—
23-31-18w Starlock, I. M. Rupard et al 1.
Marion County—
24-21-4e Jones, Sheedy et al 2.
Morris County—
32-14-7e Barber, Kline et al 1.
Ness County—
35-16-21w Ryersee, Bell & Sarton 1.
Pottawatomie County—
17- 9-12e Stewart, Crawford et al 1.
31- 9-12e Bratchbar, Crawford et al 1.
Reno County—
35-23-7w Nesley, Fleeger & Mid-Kansas Oil 1.
Rooks County—
35-10-19w Casey, Findless et al 1.
Russell County—
32-11-15w Booth, Mid-West Ref. 34.
Seward County—
14-33-33w Son, Wilson et al 1.
Smith County—
18- 5-15w Smith, Gardener 1.
Wilson County—
3-27-14e Daniels, Allison & Fitzwilliams 1.

Wells Drilling and Shut Down
(Shut Down Wells Indicated by *)

Barber County—
14-30-12w Kumburg, R. D. Rood et al 1.
27-30-14w Pickens, Rowland et al 1*.
35-32-14w Ott, Vickers & Miller 1.
13-33-13w Alexander, Schaffer O. & R. 1.
14-34-11w Martin, B. B. Brown et al 1*.
Barton County—
17-19-11w Smith, Huffine et al 1.
12-20-13w Ward, Everette & Wiley 1.
Chase County—
25-18-6e Lipps, Preston & Pasewald 1.
3-18-9e White, Watchorn O. & G. 1.
1-21-9e Richards, Manhattan & Phillips 2.
36-22-9e Shambaugh, Barnsdall Oil 2.
36-22-9e Leedy, Smith, Polhamus et al 1.
Cloud County—
6- 6-4w Murdock, Concordia O. & P. 1.
Coffey County—
2-20-13e Milner, Terrian, Balliere et al 1.
25-20-13e Stuart, Connell et al 1*.
14-21-13e O'Mears, Ritchey & Moore 1.
8-22-14e Miller, Derby Oil 1.
14-23-16e Jones, Fidelity Oil 1*.
Dickinson County—
23-13-3e Jones, Leeward Pet. 1.
Edwards County—
7-23-19w Noberwell, Edwards County Pet. 1.
Ellsworth County—
3-16-8e Herman, Wrightsman 1.
Franklin County—
17-16-18e Owens, Smith, Thrice & Fisher 1*.
22-16-21e Parris, Leeward Pet. 1.
Geary County—
18-11-5e Stinford, Kirby & Wright 1*.
9-12-6e Wright, Liberty Texas Oil 1*.
30-13-6e Foster, Liberty Texas Oil 1*.
Graham County—
23- 8-24w Taxon, Keys Bros. & Marine 1.
27- 8-25w St. John, Gulf Coast Drlg. Co. 1.
Harper County—
28-31-9w Muir, Wakefield et al 1.
19-32-5w Burk, Berry Pet. 1*.
22-34-6w Caton, Bu-Vi-Bar 1.
Harvey County—
4-23-2e Brandeweide, Watchorn O. & G. 2.
10-23-3e Freeson, Liggett et al 1*.
17-24-3w Boyle, Sinclair Oil 1.
Hodgeman County—
19-21-22w Frizzell, Spencer & Marconette 1.
Jefferson County—
13- 9-19e Edwards, Northern Counties Oil 1*.
Labette County—
26-32-17w Wilks, Ark. Fuel Oil 1*.
1-32- 20 Thurman, Noble O. & G. 1*.
33-32-20 Burnes, W. C. Willy 1*.
1-33-17 Nornbeck, Cowell et al 1*.
5-35-20 Lipps, Wantland et al 1*.
Lincoln County—
35-10-10w Brown, Red Bank Oil 1.
19-11- 6w Stone, Scott & Collins 1*.
32-11 6-w Lewis, Pope & Powell 1*.
36-13- 7w Paul, United Ref. 1*.
Logan County—
14-14-33w Moffett, Coon et al 1*.
McPherson County—
3-18-2w Anderson, Fowler et al 1.
29-18-2w Anderson, Waugh & Casey 1*.
Marion County—
8-19-4e Propp, Youker, Propp et al 2.
12-20-4e Bixler, Hay & Wells 1.
33-20-5e Wiley, Stewart, Geer et al 1.
13-21-4e Allison, Sheedy & Empire 6.
32-21-4e Equity, Morgan et al 1*.
31-21-5e Osgood, Holl et al 1.
1-22-3e Colbeck, Jamerson Bros. 1.
Mitchell County—
10- 7-10w Kyle, Marland Oil 1.
Morris County—
18-16-5e Rogers, Derby Oil 1.
21-17-7e Welcher, Bowmand & Jones 1*.
24-17-9e Cessman, Rock Creek O. & G. 1*.
Nemaha County—
19- 3-11 Myers, Nemaha O. & G. 1*.
Osborn County—
19- 8-13w Bliss, Krueger et al 1.
Osage County—
3-15-15e Lease, Barber et al 1*.
27-15-16e Baley, West et al 1*.
8-17-17e Neil, Mull Vit Dev. 1.
Phillips County—
15- 5-16w McQueen, Curtis & Frost 1.
13- 5-18w McKinley, Phillips & Prairie 1.
Pottawatomie County—
11-10-12e St. Mary, Crawford et al 1*.
Reno County—
10-23-4w Magnuson, Sheldon et al 1.
36-24-7w Rexroad, Miss. Valley Oil 1.
24-24-8w Smith, Hartman & Skaer 1*.
9-25-7w High, Cassoday Oil 1.
5-26-4w Williams, Travis et al 1*.
30-26-6w Demoret, Tatlock et al 1.
7-26-6w Stevens, Hopper et al 1.
Riley County—
26-10-6e Marks, Pawnee O. & G. 1*.
20-10-7e Thierer, Youker & Douglas 1*.
Rooks County—
7- 8-20w Saindon, Keys Pet. 1.
Rush County—
10-18-16w Moore, Morgan & Downing 1*.
Russell County—
13-11-13w Pospishal, Krueger et al 1.
32-11-15w Dodge, Derby Oil et al 4.
32-11-15w Booth, Snowden & McSweeney 4.
17-12-15w Oswald-Valerius, Valerius O. & G. 19.
18-12-15w Mermis, Valerius O. & G. 2.
20-13-15w Sloan, Keys Pet. 1*.
6-15-12w Linsay, Kettle & Shoemaker 1*.
Saline County—
29-14-2w Davis, L. S. Johnson et al 1.
26-15-2w Shallion, Brown & Woodward 1.
15-15-4w Holquest, Thrall et al 1*.
Sedgwick County—
6-25-1e Poff, Boyle et al 1*.
9-25-2e Harrison, Smith & Keller 1*.
34-26-1e Jaden, Wichita O. & G. 1*.
7-26-2e Mills, Lamson et al 1.
17-29-1e Howell, Carr, Hartman & Skaer 1*.
2-29-2e Flemming, Higgins 1.
Safford County—
24-22-11w Richardson, Randall & Johnson 1*.
Wabaunsee County—
15-13-12e Henderson, Williams et al 1*.
Wallace County—
12-13-39w Wufkuler, J. Allen Harvey 1.
Wilson County—
22-28-13e Thompson, Price et al 1*.
29-30-17e Smally, West & Williams 1*.
Rigs, 15; wells drilling, 100; total, 115.

EAST CENTRAL TEXAS

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Limestone	5	6,850	2	0	17	33	50
Navarro	1	0	1	0	0	7	7
Anderson	0	0	0	0	0	2	2
Cherokee	0	0	6	0	1	5	6
Ellis	0	0	0	0	0	2	2
Falls	0	0	0	0	0	2	2
Freestone	0	0	0	0	0	1	1
Grimes	0	0	0	0	0	1	1
Hill	0	0	0	0	0	2	2
Henderson	0	0	0	0	0	2	2
Hopkins	0	0	0	0	0	1	1
Milam	0	0	0	0	0	2	2
Total July	6	6,850	3	0	18	60	78
Total June	2	1,775	0	0	1	33	34
Difference	4	5,075	3	0	17	27	44

WELLS COMPLETED
LIMESTONE COUNTY

Rossen, Transcontinental Oil 1 2800
Cochrum, Transcontinental Oil 1 4000
Curry, Patty Kosse 1 ..... dry
Ellis, J. K. Hughes Dev. 18 50

Wells completed 4
Production 6850
Dry 1

NAVARRO COUNTY

Hilliburn, Barclay & Meadows 1 ..... dry

Wells completed 1
Dry 1

RIGS AND WELLS DRILLING
LIMESTONE COUNTY
Rigs

Hargrove, Essenmayer et al 1.
S. M. and K. O'Dell, Bass et al 1.
Smittle, Moss & Keeling 2.
Atkins, Pure Oil 2, 3.
Cogdell, Pure Oil 1.
Hobbs, Pure Oil 1.
O'Dell, Pure Oil 2.
Cogdell, Transcontinental Oil 3, 4.
O'Dell, Transcontinental 2, 3, 4.
Settle, Godley Oil Co. et al 1.
Midlock, Transcontinental Oil 1.
Erskine, Transcontinental Oil 1.
Settle, J. K. Hughes Dev. 1.
Rossen, Transcontinental Oil 4.
Rossen, Transcontinental Oil 1-A, 3-A, 4-A, 5-A, 6-A.

Wells Drilling

Rossen, Moss & Keeling 1.
O'Dell, Transcontinental Oil 1.
Mrs. Atkins, Transcontinental Oil 1.
Cogdell, Transcontinental Oil 2.
S. M. and K. O'Dell, Transcontinental Oil 1.
Rossen, Transcontinental Oil 2, 3.
A. E. Rossen, Transcontinental Oil 2-A.
Stockton, Pure Oil 1.
Fenner, Dillon & Hammond 1.
Hargrave, Eisenmayer et al 1.
Suttle, Moss & Keeling 2.
Atkins, Pure Oil 2, 3.
Cogdell, Pure Oil 1.
Cogdell, Transcontinental Oil 3, 4.
O'Dell, Transcontinental Oil 2, 3, 4.
Midlock, Transcontinental Oil 1.
Erskine, Transcontinental Oil 1.
Rossen, Transcontinental Oil 4.
Rossen, Transcontinental Oil 1-A, 3-A, 4-A, 5-A, 6-A.
O'Dell, Bass et al 1.
A. E. Rossen, Atlantic O. P. 1.
O'Dell, Cranfill et al 1.
Rossen, Block 14, Godley O. & G. 1.
Suttle, Godley Oil et al 1.
Suttle, J. K. Hughes Dev. 2.
Atkins, Moss & Keeling 1.
Rossen, Block 4, Moss & Keeling 1.
Suttle, Moss & Keeling 1.
Rossen, Block 14, Murchison & Fain 1, 2.
Atkins, Pure Oil 1.
Hobbs, Pure Oil 1.
O'Dell Pure Oil 1, 2, 3, 4.
Erksine, Reiter-Foster 1.
Rossen, Block 17, Shaffer et al 1.
Rossen, Block 39, Simms Oil 1.
Rossen, E. L. Smith Oil 1.
Atlins, Stroube et al 1.
Suttle, Stroube et al 1.
O'Dell, The Texas Company 1.
O'Dell, Transcontinental Oil 1.
Mrs. Atkins, Transcontinental Oil 1.
Cogdell, Transcontinental Oil 2.
O'Dell, Transcontinental Oil 1.
Rossen, Transcontinental Oil 2, 3.
A. E. Rossen, Transcontinental Oil 2-A.
Stockton, Pure Oil 1.
Fenner, Dillon & Hammond 1.

(Over 60 locations had been made in addition to the above operations in the Nigger Creek area, many of which will have become rigs or wells drilling by the time this report is published.)

MISCELLANEOUS
Rigs

Cherokee County—
Summers, Magnolia Pet. 1.

Wells Drilling

Anderson County—
Greenwood, Navarro Oil 1.
South Pine Lumber Co., Humble O. & R. 1.
Cherokee County—
Ousley, Humphreys Oil Corp. 1.
Earle & Ragsdale, Humble O. & R. 1.
Clapp, Humphreys Corp. 2.
Hill, Nicolle et al 1.
Boling, Humphreys Corp. 1.
Ellis County—
Griffith, Simms Oil 1.
Getzendammer, Magnolia Pet. 1.
Falls County—
Bargainer, Gulf Prod. 1.
Pessek, High Bank Oil 1.
Freestone County—
Pickens, Kechi Pet. 1.
Grimes County—
Freund, Newblock Oil 1*.
Hill County—
Rose, Johnson & Phelps 1.
Sanderson, Johnson & Phelps 1.
Henderson County—
Sterrett, Ferd. Heine 1*.
Martin, Evans et al 1*.
Milam County—
Brooks, Kilsey et al 1.
Hopkins County—
Brown, Allen & Harper 1.
Esperson, The Texas Company 1.
Navarro County—
Mitchell, Osborne et al 1.
Fallwood, Farris et al 1.
Woolens, Garland Kent 2.
K. Woolens, Garland Kent 2.
Rose, Simms Oil 12, 16.
McClelland, McDonald Brothers 2.
Longbotham, Snowden & McSweeney 13*.
Rigs, 18; wells drilling, 60; total, 78.

NORTH AND WEST TEXAS

Summary of Wells Completed
West Texas

County— West Texas:	Comp.	Prod.	Dry	Gas
Crane	6	795	4	0
Crockett	7	455	3	0
Irion	2	0	2	0
Mitchell	3	232	0	0
Reagan	11	2,270	2	1
Reeves	1	0	1	0
Sterling	1	0	1	0
Tom Green	1	0	1	0
Upton	16	5,279	3	0
Ward	1	0	1	0
Total July	49	9,031	18	1
North Texas:				
Archer	106	3,185	49	0
Baylor	2	35	1	0
Brown	88	7,123	28	1
Callahan	17	1,783	6	0
Clay	5	0	5	0
Coleman	13	275	7	0
Comanche	1	3	0	0
Cooke	2	165	1	0
Eastland	18	688	8	2
Erath	1	0	0	1
Fannin	2	0	2	0
Haskell	1	0	1	0
Jack	32	217	22	0
Montague	40	2,675	6	0
Palo Pinto	2	15	1	0
Shackelford	41	10,242	16	1
Stephens	14	73	10	0
Throckmorton	7	0	6	1
Wichita	56	898	24	0
Wilbarger	62	7,226	12	0
Young	92	2,323	52	0
Total, North Texas	602	36,926	258	6
Grand total North and West Texas, July	651	45,957	276	7
Grand total, North and West Texas, June	503	29,779	213	9
Difference	148	16,178	63	2

Summary of Wells Drilling

County— North Texas:	Rigs	Drg.	S.D.	Ttl.
Archer	7	50	9	66
Brown	3	32	5	40
Callahan	4	21	6	31

Coleman	4	22	16	42
Eastland	10	32	8	50
Jack	2	13	3	18
Montague	4	35	1	40
Shackelford	10	37	4	51
Stephens	5	26	18	49
Throckmorton	1	17	2	20
Wichita	1	38	8	47
Willbarger	14	92	13	119
Young	3	25	8	36
Miscellaneous	7	23	25	65
West Texas:				
Crane	8	5	1	14
Crockett	1	13	4	18
Mitchell	3	6	4	13
Reagan	3	32	5	40
Upton	25	19	1	45
Miscellaneous	7	40	36	83
Total July	122	588	177	887
Total June	130	634	187	951
Difference	8	46	10	64

CRANE COUNTY

Jax Cowden, Cordona Oil & Potash Co. 1 dry
W. H. Penix, Gilliam & Logan 1 dry
J. T. McElroy, Gulf Prod. Co. 1 600
E. S. Hughes, Marland Oil Co. 1 dry
E. S. Hughes, Marland Oil Co. 1-C 195
Jax Cowden, Penn-Texas Dev. Co. 1 T.A.

Wells completed 6
Production 795
Dry 4

CROCKETT COUNTY

J. M. Shannon, Crockett Dev. Synd. 2 dry
Powell, Cromwell et al 4 150
Geo. L. Thompson, Gulf Prod. 1 dry
Powell, J. K. Hughes Dev. 1-B 140
Powell, Humble O. & R. 5 150
Powell, Humble O. & R. 7 15
Todd, Marland Oil 1 dry

Wells completed 7
Production 455
Dry 3

IRION COUNTY

Sawyer Cattle Co., Oklavania Oil 1 dry
Ash Brothers, P. H. Williams 1 dry

Wells completed 2
Dry 2

MITCHELL COUNTY

Womack, Atlantic Oil Prod. 5 100
C. M. Adams, Magnolia Pet. 4 20
C. M. Adams, Lease 3, California Co. 1 112

Wells completed 3
Production 232

REAGAN COUNTY

University, Big Lake Oil 3-B 44
University, Big Lake Oil 4-B 40
University, Big Lake Oil 7-B 340
University, Big Lake Oil 68 169
University, Big Lake Oil 71 120
University, Big Lake Oil 75 750
University, Tannehill et al 1 T.a.
University Group 1, Texon O. & L. 3-A gas
University, Texon O. & L. 4 dry
University, Texon O. & L. 42 87
University Group 1, Texon O. & L. 46 720
Kloh & Rumsey, World Oil 1 dry

Wells drilling 11
Production 2270
Dry 2
Gas 1
Gas production 10,000,000

STERLING COUNTY

L. T. Clark, Deep Rock Oil 1 dry

TOM GREEN COUNTY

L. T. Clark, Roxana Pet. 1 dry

UPTON COUNTY

A. S. Burleson, Dixie Oil 5 40
E. S. Hughes, Dixie Oil 2 2400
E. S. Hughes, Eastland Oil 1 dry
A. S. Burleson, Marland Oil 4 25
A. S. Burleson, Marland Oil 5 220
A. S. Burleson, Marland Oil 6 200
A. S. Burleson, Marland Oil 7 265
A. S. Burleson, Marland Oil 7 344
A. S. Burleson, Marland Oil 1-A 35
Hughes, Marland Oil 1-B 70
Sanger Brothers, Marland Oil 3 15
Sanger Brothers, Marland Oil 4 40
Sanger Brothers, Marland Oil 5 25
Sanger Brothers, Marland Oil 6 1600
Union Land Co., Plateau Oil 1 dry
University, Willis & Campbell 1 dry

Wells completed 16
Production 5279
Dry 3

WARD COUNTY

Marston, Chesapeake Oil 1 dry

NORTH TEXAS
ARCHER COUNTY

B. G. Hassan, Allday Oil 2 dry
Powell, Allday Oil 1 dry
C. Star, Ashcraft et al 1 dry
Oldham, Atlantic O. P. 1 65
A. J. Lowe, Barnsdall Oil 3 dry
Wolf, Barnsdall Oil 1 7
J. J. Perkins et al, Guy L. Brown 1 60
McCrory, tr., L. T. Burns 1-E dry
McCrory, tr.-F., L. T. Burns 1 dry
A. J. Moss, L. T. Burns 1 dry
W. T. Hutcheson, B. F. Caldwell and Consolidated Oil 4 125
W. M. Coleman, Rex Cannon et al 1 dry
W. R. Brown, R. I. Carter 1 dry
J. F. Rogers, Continental Oil 8 30
Kunkel, Cook & Reeder 1 60
Kunkel, Cook & Reeder 1 180
Frank Jehlik, Cosden-Consolidated Oil 2 dry
F. Jehlik, Cosden & Consolidated Oil 3 dry
G. T. Netherton, Cosden & Cons. Oil 1 dry
L. F. Wilson, Crown Central Pet. 2 25
L. F. Wilson, Crown Central Pet. 3 30
Coleman, Dale O. & R. & Ray & Massie 1 dry
Longley est., Dale Oil 1 dry
L. F. Wilson-F, Dale Oil 5 dry
Hausler, Davis et al 1 dry
Thomas, Gates Oil 1 175
Thomas, Gates Oil 2 75
J. A. Bell, Golding & Cochran 1 dry
H. O. Prideaux, Golding & Cochran 1 11
R. O. Prideaux, Golding & Cochran 1 dry
B. R. Jeske, Gulf Prod. 9 35
A. P. Nichols, Gulf Prod. 41 40
A. B. Edwards, L. P. Hammond 1 dry
H. F. Harmel, Head & Heydrick 1 dry
I. H. Gatright, Harry Hines 1 dry
Hamilton, Humble O. & R. 14 35
Andrews, Tom Humphries 1 dry
R. O. Prideaux, Kell & Kruger 3 20
H. O. Prideaux, Lewis Oil 2 20
H. O. Prideaux, Lewis Oil 3 15
A. D. Thompson, M. L. Lewis et al 2-B (40 bbls. w.) 10
S. Wilson, Jesse Lincoln 2 dry
D. M. & C. S. Harris, Long et al 1 dry
Parrish Brothers, McCarty Oil 1 70
Wilson, Lot 401, McCarty Oil 1 30
Wilson, McCarty Oil 1 75
School land, McCarty Oil 2 30
G. P. Meade est., Maer & Staniforth 4 5
G. P. Meade est., Maer & Staniforth 5 32
Slaughter, Maer & Staniforth 1 dry
Wilson, Maer & Staniforth 1 dry
W. T. Coffield, Magnolia Pet. 8 5
I. C. Little et al, Magnolia Pet. 5 60
A. J. Lowe, Magnolia Pet. 23 43
J. M. Miller, Magnolia Pet. 1-A dry
W. H. Portwood, Magnolia Pet. 12 8
J. F. Rogers-B, Magnolia Pet. 8 dry
May Rutty, Magnolia Pet. 8-A 3
W. H. Thomas, Marland Oil 3 150
W. H. Thomas, Marland Oil 4 8
W. H. Thomas, Marland Oil 5 85
W. H. Thomas, Marland Oil 7 110
W. H. Thomas, Marland Oil 8 75
W. H. Thomas, Marland Oil 9 50
W. H. Thomas, Marland Oil 10 dry
W. L. Andrews, Mid-Kansas O. & G. 1 6
T. B. Wilson, D. Monniger et al 1 300
Deitrich, Murchison & Fain 2 115
Deitrich, Murchison & Fain 3 dry
Sarah E. Finch, Murchison & Fain and Payne 1 dry
W. J. Logan-B, Murchison & Fain 1 15
L. F. Wilson-F, Murchison & Fain 1 dry
T. L. Blewitt, Olney Drlg. 1 dry
L. L. Hudson, Pandem Oil 1 16
W. H. Thomas, Pandem Oil 1-D 90
W. H. Thomas, Pandem Oil 2 dry
W. H. Thomas, Pandem Oil 3 80
J. A. Young, Pandem Oil 6 240
Meade est., Phillips Pet. 1 15
G. P. Meade, est., Phillips Pet. 2 dry
Geo. Parrish, Rayzor & Seaberry 2 dry
Baggett, Reed & Wooten 1 5
Wilson-A, Shappell Oil 6 dry
L. F. Wilson-B, Shappell Oil 5 dry
G. P. Meade, est.-A, Shasta Oil et al 2 24
G. P. Meade, est.-A, Shasta Oil et al 3 72
Meade-A, Shasta Oil 5 10
Robinson-A, Shaw & Rathke 1 15
L. F. Wilson-B, Shaw et al 7 20
S. M. Cowan, est.-B, Smith Oil 14 dry
Abercrombie & Taylor, Sun Oil 1 dry
H. Foerster, Sun Oil 1 dry
C. E. Graham-B, Sun Oil 1 dry
Abercrombie, The Texas Company 10 125
Kunkel, The Texas Company 6 30
H. O. Prideaux, The Texas Company 5 dry
J. T. Richardson, The Texas Company 13 dry
Abercrombie & Taylor, Texhoma O. & R. 9 42
Griffin, Texhoma O. & R. 1 dry
W. B. Hamilton, Texhoma O. & R. 13 48½
L. J. Kunkel, Texhoma O. & R. 5 45
W. J. Logan, Texhoma O. & R. 1 dry
Geo. Parrish et al-A, Texhoma O. & R. 5 dry
R. O. Prideaux-A, United Producers 3 15
J. H. Carter, W. C. Young 1 dry

Wells completed 106
Production 3185
Dry 49

BAYLOR COUNTY

Schindler, Bridwell & Heydrick et al 1 dry
W. B. Mills, Brit. Cranfill et al 6 35

BROWN COUNTY

W. W. Allen, Barkley & Conway 3 dry
W. W. Allen, Barkley & Conway 4 10
Dunn, Bedichek 1 dry
Graham est., Bowers 1 dry
J. G. Gaines, Brown & Co. 2 25
Nixon, Carter et al 1 dry
Baxter, Cosden 9 5
Westerman, J. S. Cosden 11 15
Elmo Williams-A, J. S. Cosden 3 60
Elmo Williams-A, J. S. Cosden 9 60
G. W. Pickett, Jr. "A", Curry & Moore 1 5
Prater, Curry & Moore 2 dry
Roirdan, Cox & Spratt 1 dry
Mrs. M. J. Suttles, Dozier & Bowers 1 dry
Butler, Fagg et al 2 dry
J. P. Newton, R. G. Gillespie 6 25
A. B. Teston, Gilman & McMurry 8 25
Harrell, Goldrick & Baker 1 dry
Armstrong, Harris, Hays Co. 1 dry
J. H. Prather, S. S. Herring 3 dry
Arledge, Hughes Dev. Co. 12 30
J. T. Arledge, J. K. Hughes Dev. Co. 13 20
J. H. Kellar, J. K. Hughes Dev. Co. 2 dry
J. Wooldridge, Hughes Dev. Co. 1 dry
J. H. Allen, Humble O. & R. 3 8
J. H. Allen-B, Humble O. & R. 5 dry
W. W. Allen, Humble O. & R. 3 264
W. W. Allen, Humble O. & R. 4 dry
J. I. Foster, Humble O. & R. 1 480
J. T. Hodnett, Humble O. & R. 4 10
J. C. Kilgore-B, Humble O. & R. 2 500
J. C. Kilgore-B, Humble O. & R. 4 600
J. C. Kilgore-B, Humble O. & R. 5 400
E. P. & W. H. Kilgore, Humble O. & R. 2 dry
E. P. & W. H. Kilgore, Humble O. & R. 3 100
E. P. & W. H. Kilgore, Humble O. & R. 4 819
E. P. & W. H. Kilgore, Humble O. & R. 5 dry
E. P. & W. H. Kilgore-C, Humble O. & R. 1 510
E. P. & W. H. Kilgore-C, Humble O. & R. 2 100
E. P. & W. H. Kilgore-D, Humble O. & R. 1 200
Stover, Humble O. & R. 4 10
E. L. Stover, Humble O. & R. 5 40
W. A. Prater, H. W. Drlg. Co. 7 35
Fry, Lester 1 100
Henslee, Louisiana O. & R. 1 125
Henslee, Louisiana O. & R. 2 60
J. I. Foster, J. E. McKanna 1 600
Clark, McLester Oil 8 100
J. Wooldridge, McLester Oil 1-A dry
J. Wooldridge, McLester Oil 4 250
J. Wooldridge, McLester Oil 5 235
J. Wooldridge, McLester Oil 5 65
L. V. Edington, Mahlstedt Oil 2 20
J. H. Newton, Mahlstedt Oil 11 10
Suttles, Midwest Exploration 4 25
Suttles, Midwest Exploration 5 5
Suttles, Midwest Exploration 6 50
Suttles, Midwest Exploration 7 50
Browder, Mitcham & Logan 1 dry
Hill, Nelson & Crabtree 1 dry
Wright, Oil Operators Trust 1 dry
Westerman, Pandem Oil 3 20
Westerman, Pandem Oil 4 30
T. L. Dunn, Phillips Pet. 4 30
T. L. Dunn, Phillips Pet. 5 35
T. L. Dunn, Phillips Pet. 6 20
T. L. Dunn, Phillips Pet. 7 dry
J. F. Pickett, Prairie O. & G. 1 100
J. W. Pickett, Jr., Prairie O. & G. 8 2
Trammell, Prairie O. & G. 1 100
Wooldridge, Prairie O. & G. 6 100
Stout, Ray & Co. 1 gas
M. J. Suttles, Root et al 5 10
W. A. Prater, Schaffner & Wilson 11 50
Henson, Schaffner & Ramsey 1 40
Gaines, Simms Oil 8 dry
Graham est., E. L. Smith Oil 2 dry
Giddings, Superior Oil 1 dry
Edington, The Texas Company 4 dry
Edington, The Texas Company 5 180
Patterson, Thomas Reynolds 1 dry
A. B. Teston, Valley Oil 1 150
J. W. Newton, West & H-Y Oil 6 10
J. W. Newton, West & H-Y Oil 7 40
Teston, Williamson et al 4 75
H. A. Newton, Williamson et al 5 65
H. A. Newton, Williamson et al 6 15
Wooldridge, Wilson 2 dry

Wells completed 88
Production 7128
Dry 28
Gas 1
Gas production 4,000,000

CALLAHAN COUNTY

Long, Amerada Pet. 1 144
D. H. Derrington, Canyon O. & G. 4 150
E. E. Henderson, Cranfill & Reynolds 1 125
Yost, Franck & Lewis 1 dry
Smith, Gibson & Johnson 1 dry
Cutbirth, Hughes Dev. Co. 1 dry
Freeland, Hughes Dev. Co. 1 dry
Minnock, Ingleright 1 dry
Strahan, McCamey et al 1 dry
Wm. James, Moutray Oil 1 24
Baum, Prairie O. & G. 1 200
Bond, T. B. Slick 1 270
Bond, Prairie O. & G. 1 135
Bond, Prairie O. & G. 2 202
Cunningham, Prairie O. & G. 2 60
Cunningham, Prairie O. & G. 3 73
J. B. McDonough, Prairie O. & G. 10 400

Wells completed 17
Production 1783
Dry 6

CLAY COUNTY

M. K. Inman-A, Howard Pet. et al 1 dry
T. E. Teat, J. J. Jenkins 1 dry
Holloway, Lone Star Gas 20 dry
R. M. Waggoner, Simms Oil 1 dry
Kaufman & Jones, Western Oil 2 dry

Wells completed 5
Dry 5

COLEMAN COUNTY

Morris, Bateman & Campbell 1 dry
Dibrell, Burk-Greis Oil & Gwinnup 7 5
Morris, Hughes Dev. Co. 1 dry
Dibrell, Independent O. & G. 3 70
Dibrell, Independent O. & G. 4 70
Dibrell, Kirby Pet. 2 60
Dibrell, Midwest Exploration 3-A 60
Dibrell, Midwest Exploration 4-A 10
Edmondson, Miller & Stovall 1 S.&A.
Lobstein, Mitcham et al 1 dry
Harris, National O. & R. 1 dry
Hall, Reeves & Meredith 1 dry
Dibrell, White Eagle O. & R. 2 dry

Wells completed 13
Production 275
Dry 7

COMANCHE COUNTY

Utterback, Trojan Oil 1 3

COOKE COUNTY

Osborne, Elliott & Wallace 1 dry
A. Hyman, C. C. Lanier et al 2 165

EASTLAND COUNTY

Connellee, Amyx et al 2 gas
Terry, Delaney 1 dry
Jackson, Denny & Andrews 1 dry
G. P. Wright, Eastland Oil 2 150
Fox, Evans et al 1 dry
Parsons-A, Gulf Prod. 4-A 22
J. D. Parsons, Gulf Prod. 1 108
Bell, Inglewright et al 1 dry
P. G. Wright, J. W. Lewis et al 2 dry
Harris, Magnolia Pet. 11 70
Butler, Mook et al 1 dry
Motes, Parsons et al 4 gas
Parsons, Prairie O. & G. 1 3
W. P. Gullett, Robert Oil 1 dry
Strickland, Root et al 1 dry
Morgan, Simon et al 1 100
Wright, Smith et al 1 135
Noble et al, The Texas Company 1 100

Wells completed 18
Production 688
Dry 8
Gas 2
Gas production 6,000,000

ERATH COUNTY

Laney, Goodwin 4 gas

Gas production 200,000

FANNIN COUNTY

Whitting, J. W. Atkins 1 t.a.
Owen, Payne-Bond et al 1 dry

HASKELL COUNTY

Ballard, Kouri et al 2 dry

JACK COUNTY

Roberts, Baytex Oil 1 dry
Snedeker, Baytex Oil 2 20
Oliver, Buttram Pet. 1 dry
Preston, Buttram Pet. 3 17
Wm. Hanna, Conklin et al 1 dry
Bloodworth, Cowboy Oil 1 dry
Allen, Godley Oil 1 dry
Mrs. M. D. Snedeker, Guthrie et al 1 10
Snedeker, Guthrie et al 1 20
Mrs. M. D. Snedeker, Guthrie et al 2 5
Mrs. M. D. Snedeker, Guthrie et al 4 20
Brown, Hastain & Purman 1 dry
C. C. Bloodworth, Hill & Rutter 1 dry
W. T. Stewart est., Howard et al 2 dry
Mrs. T. S. Dedrick, McGregor et al 1 dry
James Ellis et al, Meeks & Foster 1 dry
S. M. Jones est., Murchison & Fain 1 dry
Rankin, Murchison & Fain 1 dry
Wm. Hanna, S. E. Oldham et al 1 10
L. S. Wright, Pandem Oil 1 t.a. dry
Loving, Ryan et al 1 dry
Cullers, Seaboard Oil 1 80
Snedeker, Staley & Wynne 1 5
Mrs. M. D. Snedeker, Staley & Wynne 1 30
Snedeker, Staley & Wynne 2 dry
Snedeker, Staley & Wynne 3 dry
J. B. Mortin, Strong et al 1 dry
Plemons, Wallace & Nichols 1 dry
Patton, Wellman et al 1 dry
Wilson, Wolf Oil 1 dry
Brentmoor, Wynne & Wynne 1 dry

Wells completed 32
Production 217
Dry 22

MONTAGUE COUNTY

R. Hinds, Benton-Woods et al 9 9
R. Hinds, Benton-Woods et al 10 60
N. J. Howard et al, F. H. E. Oil 1 35
Howard-A, F. H. E. Oil 2 35
Hinds-B, F. H. E. Oil 4 50
R. Hinds-A, F. H. E. Oil 6 90
R. W. Cunningham, Gulf Prod. 10 52
R. W. Cunningham, Gulf Prod. 12 50
J. W. Maddox, Harris & Simons 1 125
R. Hinds, Humble O. & R. 7 6
R. Hinds, Humble O. & R. 8 70
R. Hinds, Humble O. & R. 9 5
Hinds, Humble O. & R. 10 40
J. W. Maddox, Humble O. & R. 1 714
J. W. Maddox, Humble O. & R. 2 100
Cunningham, Jamison et al 1 dry
R. Hinds, Lesh, McCall & Kilcrease 5 10
J. W. Maddox-A, Pure Oil 4 15
Maddox-C, Pure Oil Co. 1 61
J. B. Oldham et al-A, Pure Oil 2 40
R. W. Cunningham, Rycade Oil 1 dry
R. W. Cunningham, Rycade Oil 2 dry
R. W. Cunningham, Rycade Oil 4 dry
Glst, The Texas Company 9-A 126
I. A. Glst-A, The Texas Company 10 80
I. A. Glst-A, The Texas Company 11 75
I. A. Glst-A, The Texas Company 12 75
J. B. Oldham et al, The Texas Company 8 125
Oldham et al, The Texas Company 9 140
R. W. Cunningham, Texhoma O. & R. 1 dry
E. J. Bouldin-A, Texhoma O. & R. Co. and Republic Prod. Co. 1 43
R. Hinds, Texhoma O. & R. Co. & Republic Prod. Co. 7 50
R. Hinds, Texhoma O. & R. Co. & Republic Prod. Co. 8 26
R. Hinds, Texhoma O. & R. Co. & Republic Prod. Co. 9 32
Howard et al, Texhoma O. & R. Co. & Republic Prod. Co. 4-A 40
N. J. Howard et al-A, Texhoma O. & R. 5 53
J. W. Rowland et al, Texhoma O. & Co. and Republic Prod. Co. 2 78
J. W. Rowland et al, Texhoma O. & R. Co. and Republic Prod. Co. 3 60
Rowland, Texhoma O. & R. Co. and Republic Prod. Co. 4 67½
Meekins, Wemberly et al 1 dry

Wells completed 40
Production 2675
Dry 6

PALO PINTO COUNTY

J. H. Robinson, Moore & Snebold 2 15
Costello Brothers, Whatley et al dry

SHACKELFORD COUNTY

Burns, Cady 1 dry
J. B. Matthews, Engle Brothers 3 3
Newell, French & Lewis 1 dry
Reynolds, Heck et al 2 dry
Davis, Hope Pet. 2 260
Moberly, Hughes Dev. Co. 1 dry
Cook, Humble O. & R. 3 700
Cook, Humble O. & R. 4 450
Cook, Humble O. & R. 5 350
Cook, Humble O. & R. 6 360
Flippen, Jackson et al 1 dry
Davis, Lake et al 1 gas
Moberly, Magnolia Pet. 1 30
Edwards, Melton Oil 1 27
Z. W. Casey, Milham Corp. 3 12
Sedwick, Milham Corp. 1 300
Colbert, Richardson Brothers 1 dry
Davis, Robert Oil 1 dry
Cook, Roeser & Pendleton & Marland Oil 1-A-81 dry
Cook, Roeser & Pendleton & Marland Oil 3-A-84 200
Cook, Roeser & Pendleton & Marland Oil 6-A-84 1000
Cook, Roeser & Pendleton & Marland Oil 7-A-84 200
Cook, Roeser & Pendleton & Marland Oil 8-A-84 500
Cook, Roeser & Pendleton & Marland Oil 10-A-84 dry
W. I. Cook, Roeser & Pendleton & Marland Oil 11-A-84 350
Cook, Roeser & Pendleton & Marland Oil 12-A-84 200
Cook, Roeser & Pendleton & Marland Oil 2-A-85 dry
Cook, Roeser & Pendleton & Marland Oil 8-A-85 dry
Cook, Roeser & Pendleton & Marland Oil 9-A-85 dry
Cook, Roeser & Pendleton & Marland Oil 15-A-85 200
Cook, Roeser & Pendleton 2-B-84 100
Cook, Roeser & Pendleton 3-B-84 700
Cook, Roeser & Pendleton 4-B-84 100
Cook, Roeser & Pendleton 5-B-84 900
Cook, Roeser & Pendleton 6-B-84 1000
Cook, Roeser & Pendleton 4-B-85 dry
Cook, Roeser & Pendleton 5-B-85 dry
Cook, Roeser & Pendleton 9-B-85 300
Cook, Roeser & Pendleton 11-B-85 2000
R. J. Moberly, Tannehill Oil 16 dry
Matthews, Wells et al 1 dry

Wells completed 41
Production 10,242
Dry 16
Gas 1
Gas production 2,000,000

STEPHENS COUNTY

Norvell, Brown & Co. 1 dry
M. A. McNabb, Clark & Hooker 1 dry
Post, Eidson et al 3 25
McCauley, Herbert Oil 1 dry
Parks, Hickok Prod. 2 3
Brown, Humble O. & R. 1 dry
Houston, Humble O. & R. 1 dry
Hill, Acct. 1, Mid-Kansas O. & G. 14 25
Moon, Producers Union Oil 1 dry
Crowley, Rhodes & Higher 4 20
Rush, Roeser & Pendleton 1 dry
Stuart, Strawn Pet. 24 dry
Cobb, Swensondale Oil 8 dry
Curry, The Texas Company 2 dry

Wells completed 14
Production 73
Dry 10

THROCKMORTON COUNTY

Reynolds Cattle Co., Associated Pet. 3 dry
Mrs. M. E. Ledbetter, Humble O. & R. 1 dry
Kirk Ledbetter, Humble O. & R. 2 dry
Stevens, Humble O. & R. 1 dry
Tuton, Humble O. & R. 1 dry
Donnell et al, Red Bank Oil 1 gas
A. J. Lee, Reiter-Foster Oil 1 dry

Wells completed 7
Production 0
Dry 6
Gas 1
Gas production 4,000,000

WICHITA COUNTY

Burnett, Ascot Co. 5 dry
Grace Jennings-B, Bullington, Lee & Pendleton 2 dry

Grace Jennings-B, Bullington, Lee & Pendleton 3 35
Grace Jennings-B, Bullington, Lee & Pendleton 4 ..... dry
Warren, Cozy Oil 10 ..... dry
Warren, Cozy Oil 11 ..... dry
Warren, Cozy Oil 12 ..... dry
Karrenbrock, Craig & Wilson 1 ..... dry
Kemp & Kell, F. P. Cullum et al 1 ..... dry
Forbes-Burnett, Gulf Prod. 20 ..... dry
Burnett et al, tract B, Gulf Prod. 38 4
Allingham-A, Hereford Oil 2 25
Chas. Pettit, Harry Hines 1 3
H. B. Hines, J. W. Hooser 3 50
Hines-A, Humble O. & R. 2-B ..... dry
L. F. Potter, Humble O. & R. 1 ..... dry
S. S. Fassett, Kimmell, Dillard & Bowen 1 10
Chilson, O. C. Lawrence 3 ..... dry
Burnett, Madison O. & G. 15 ..... dry
Peeler, Magnolia Pet. 4 (4 bbls. water) 7
Rio Bravo, Magnolia Pet. 55 (42 bbls.w.) 5
Birk & George, O'Donohoe & Gates 1 ..... dry
W. H. Chilson, W. B. Omohundro 1 (Block 3) ..... dry
J. W. Harrison, John O'Neil 1 3
G. L. Woodward, John O'Neil et al 1 ..... dry
W. H. Chilson, Panhandle Refg. 1 ..... dry
J. A. Fisher, Pet. Investment Co. 20 6
Allen & Kemp-D, Pet. Prod. Co. 3 25
W. W. Overby, T. F. Pyle et al 2 ..... dry
Bywaters, Red River Oil 86 ..... dry
McClure-B, Rubsam, Hunter et al 1 25
McClure-B, Rubsam, Hunter et al 2 ..... dry
Nance, Ryan Pet. Co. 63 ..... dry
Nance, Ryan Pet. Co. 64 6
Nance, Ryan Pet. Co. 65 50
Nance, Ryan Pet. Co. 66 60
Nance, Ryan Pet. Co. 67 5
Nance, Ryan Pet. Co. 68 65
Nance, Ryan Pet. Co. 69 ..... dry
Nance, Ryan Pet. Co. 70 22
Nance, Ryan Pet. Co. 71 75
Nance, Ryan Pet. Co. 72 50
Nance, Ryan Pet. Co. 73 50
Nance, Ryan Pet. Co. 74 45
Nance, Ryan Pet. Co. 75 45
Dutton, Simms Oil 3 35
B. F. Dutton-A, Simms Oil 4 (7½ bbls. water) 24
Bertha Ramming, Skelly Oil 6 9
C. Ramming, Skelly Oil 13 35
Mrs. Lillis Morgan, O. C. Somers et al 1 ..... dry
W. H. Chilson, Block 12, E. J. Stump & C. et al 1 51
Burnett-E, Texhoma O. & R. 9 60
Grace Jennings-A, United Prod. 6 ..... dry
Burnett, Virginia Oil 1 5
T. L. Burnett, Virginia Oil Asso. 25 5
E. Daume, A. T. Wolfe 4 20

Wells completed 56
Production 898
Dry 24

WILBARGER COUNTY

Stephens-B, Barkley & Meadows 7 50
Waggoner, Beatty 2 (20 bbls. water) 25
Waggoner, Bob Brewer 1 ..... dry
Richardson, Empire G. & F. 4 50
Stephens, Empire G. & F. 41 171
Stephens, Empire G. & F. 45 20
W. T. Waggoner-R, Gulf Prod. 5 90
Bond-B, Humble O. & R. 5 (10 bbls. w.) 15
Stephens, Humble O. & R. 47 20
Stephens, Humble O. & R. 47 20
Waggoner-H, Humble O. & R. 13 40
Waggoner-K, Humble O. & R. 2 20
Waggoner-M, Humble O. & R. 7 200
Waggoner-M, Humble O. & R. 8 120
Waggoner-M, Humble O. & R. 9 80
Waggoner-M, Humble O. & R. 10 140
Waggoner-M, Humble O. & R. 12 60
Waggoner-N, Humble O. & R. 4 60
Waggoner-O, Humble O. & R. 8 120
Waggoner-O, Humble O. & R. 9 40
Bond, E. B. Lawson 6 ..... dry
Fee, Magnolia Pet. 72 70
More-Waggoner, Magnolia Pet. 2 ..... dry
Waggoner-A, Milham Corp. 2 ..... dry
Waggoner-A, Milham Corp. 3 ..... dry
Waggoner-B, Milham Corp. 1 50
Waggoner-B, Milham Corp. 4 42
Waggoner-H, Milham Corp. 7 185
Waggoner-H, Milham Corp. 10 145
Waggoner-H, Milham Corp. 11 230
Waggoner-L, Milham Corp. 5 85
Waggoner-L, Milham Corp. 12 100
Waggoner-L, Milham Corp. 13 220
Waggoner, Miller Oil 3 40
Streit, Murchison & Fain 1 ..... dry
Dill-B, Pet. Prod. 3 ..... dry
Waggoner-F, Phillips Pet. 9 38
Waggoner-L, Phillips Pet. 2 33
Waggoner-Q, Phillips Pet. 3 487
Waggoner-Q, Phillips Pet. 6 315
Waggoner-R, Phillips Pet. 1 300
Waggoner-T, Phillips Pet. 2 123
Waggoner-T, Phillips Pet. 3 767
Waggoner-T, Phillips Pet. 5 559
Waggoner-U, Phillips Pet. 1 40
Waggoner-WH, Phillips Pet. 2 80
Waggoner-JJ, Phillips Pet. 2 60
Waggoner-NN, Phillips Pet. 5 506
Waggoner-QQ, Phillips Pet. 6 185
Waggoner-QQ, Phillips Pet. 7 315
Waggoner-QQ, Phillips Pet. 9 125
Waggoner-QQ, Phillips Pet. 10 150
Waggoner-WW, Phillips Pet. 1 130
Waggoner-WW, Phillips Pet. 2 285
Woodward, Plost et al 1 ..... dry
Waggoner-A, Prairie O. & G. 3 20
F. A. Sumner, Roxana Pet. 1 ..... dry
Waggoner-C, Roxana Pet. 1 ..... dry
Waggoner-C, Roxana Pet. 2 ..... dry
Waggoner, Shipley 1 ..... dry
Waggoner-A, Waggoner Refg. 3 200
Ross, Wanderer Oil 1 ..... dry

Wells completed 62
Production 7226
Dry 13

YOUNG COUNTY

A. Williams, Albright et al 1 ..... dry
Rachuig-B, Atlantic Oil Prod. 5 225
Rachuig-B, Atlantic Oil Prod. 6 100
Rachuig-B, Atlantic Oil Prod. 7 20
Stewart, Barkley et al 1 ..... dry
W. F. Brown, Barnes et al 1 ..... dry
Stewart, Biljobul Oil 1 ..... dry
Beardon, Bridwell & Heydrick 8-A ..... dry
H. B. Street, Bridwell & Mayfield 9 64
H. B. Street, Bridwell & Mayfield 19 ..... dry
Sanders, Camp O. & G. 1 ..... dry
R. Campbell, R. Campbell 2 ..... dry
S. M. J. Benson, R. I. Carter 13 30
S. M. J. Benson, R. I. Carter 14 15
Rachuig, R. L. Carter 1 ..... dry
Rachuig, Chenault & Lea 3 150
Rachuig, Chenault & Lea 6 200
Rachuig, Chenault & Lea 4 150
Rachuig, Chenault & Lea 5 80
Casey, Consolidated Oil 1 ..... dry
Honea, Consolidated Oil 1 ..... dry
Benson, Cosden & Consolidated Oil 8 ..... dry
Benson, Cosden & Consolidated Oil 9 7
Benson, Cosden & Consolidated Oil 10 8
Benson, Cosden & Consolidate Oil 11 ..... dry
W. H. Baker, Deats & Stimson 1 ..... dry
F. C. Dailey, Dublin Dev. Co. 1 ..... dry
J. P. Logan, Evans et al 1 ..... dry
F. E. Wilton, Foster et al 1 ..... dry
Whitehead, Hamilton & Martin 2 60
Whitehead, Hamilton & Martin 3 ..... dry
Whitehead, Hamilton & Martin 4 ..... dry
H. W. Drum, Harris & Sandeford 1 ..... dry
Ledbetter, Howard et al 1 ..... dry
G. P. Stewart, Howard Pet. Co. & Cole 1 30
G. P. Stewart, Howard Pet. Co. & Cole 2 10
G. P. Stewart, Howard Pet. Co. & Cole 3 10
Stewart, Blk. 2, Howard, Duffield & Berlin 3 ..... dry
G. P. Stewart, Howard Pet. 4 35
G. P. Stewart, Howard Pet. 5 ..... dry
G. P. Stewart, Howard Pet. 6 16
G. P. Stewart, Howard Pet. 7 ..... dry
Hamilton, Humble O. & R. 12 ..... dry
E. R. Prideaux, Hunt & Seigler 1 ..... dry
A. C. Speer, Ilseng Prod. 1 ..... dry
Leberman, Jeffers & Jeffers 1 ..... dry
Bryan, Long et al 3 ..... dry
H. C. McCaghren, Long 2 ..... dry
H. C. McCaghren, Long et al 3 15
Wilson, Long et al 1 ..... dry
D. C. Ward, McElreath & Suggett 1 ..... dry
Prideaux, Maer & Staniforth 2 ..... dry
Benson, Madden et al 1 ..... dry
Little, Magnolia Pet. 3 35
Little, Magnolia Pet. 4 31
Stewart, J. J. Moran 1 60
Logan, Nash & Windfohr 1 ..... dry
Watson, Nash & Windfohr 1 20
A. A. Bernhardt, Pace Drlg. Co. 3 ..... dry
A. A. Bernhardt, Pace Drlg. Co. 4 10
Whitehead, Pandem Oil 1 45
Whitehead, Pandem Oil 2 50
Whitehead, Pandem Oil 3 ..... dry
Prideaux-C, Panhandle Refg. et al 1 ..... dry
Corbett, Phillips Pet. 2 ..... dry
Mrs. C. Williams, Ray Massie 1 ..... dry
J. W. Jack, Reed et al 2 ..... dry
J. W. Jack, Reed et al 3 ..... dry
Drum, Reed & Wooten 1 ..... dry
R. L. Watson, Reed & Wooten 1 118
J. W. Jones, Riggs et al 1 ..... dry
Rogers, Roberts Oil Corp. 4 15
Rogers, Roberts Oil Corp. 5 200
Rogers, Roberts Oil Corp. 6 35
Rogers, Roberts Oil Corp. 7 70
W. O. Shaw, Rowe Drlg. Co. 1 ..... dry
H. O. Prideaux-B, Shaw & Rathke 1 ..... dry
M. A. Stewart, Shaw & Rathke 1 ..... dry
M. A. Stewart, Shaw & Rathke 3 ..... dry
F. C. Dailey, Stafford & Hayes 3 14
F. C. Dailey, Stafford & Hayes 4 10
Otto Deitrich, Sun Oil 3 65
Otto Deitrich, Sun Oil 6 70
Otto Deitrich, Sun Oil 7 125
Otto Deitrich, Sun Oil 8 ..... dry
Beardon, The Texas Company 11 40
Benson, Tidal Oil 3 60
Benson-B, Tidal Oil 1 20
Benson, Walker 8 15
C. M. Thompson, Wolf et al 1 ..... dry
W. M. Ward, Wolf et al 1 ..... dry
Watson, Wood & Holbrook 1 ..... dry

Wells completed 92
Production 2323
Dry 52

COMPLETED WELLS
TEXAS PANHANDLE
During July

CARSON COUNTY

S. B. Burnett, Gulf Prod. 11 ..... gas
S. B. Burnett, Gulf Prod. 12 130
J. C. McConnell, Young & Patrick 1 ..... gas

Wells completed 3
Production 130
Gas 2
Gas production 92,800,000

HUTCHINSON COUNTY

Whittenburg-B, Amerada Pet. 1 60
E. E. Watkins, Bear Creek Oil 1 ..... dry
J. A. Whittenburg, Coble Oil and Whittenburg 2 100
J. A. Whittenburg, Coble Oil and Whittenburg 4 1200
Smith, Cockrell & McIlroy 2 (Sec. 14) 400
Johnson Brothers, Derby Oil 2 (Sec. 20) 400
Smith, Dixon Creek Oil 3 4500
Smith, Dixon Creek Oil 5 100
Smith, Dixon Creek Oil 6 (20% water) 500
Smith, Dixon Creek Oil 9 100
Smith, Dixon Creek Oil 13 720
Smith, Dixon Creek Oil 15 900
Smith, Dixon Creek Oil 17 ..... gas
Smith, Dixon Creek Oil 33 770
Smith, Dixon Creek Oil 36 400
J. A. Whittenburg, Douglas Oil and Cline 1 50
Smith, Echo Oil 2 300
Dial et al, Gulf Prod. 10 550
Gulf, Panhandle, Cline fee, Gulf Prod. 1 225
J. T. Hodges, Gulf Prod. 1 67
Smith et al, Holmes, Currie & McKnight 1 250
Kingsland, J. K. Hughes Dev. Co. 3-A 250
Kingsland, J. K. Hughes Dev. Co. 6-A 20
Kingsland, J. K. Hughes Dev. Co. 7-A 103
Belle Wisdom, Marland Oil 1 30
Smith, S. D. & W. W. McIlroy 1 800
Smith, S. D. & W. W. McIlroy 2 1200
Smith, S. D. & W. W. McIlroy 3 900
Smith, McIlroy & Herring 4 1000
Smith, McMan O. & G. 5 (15% water) 2000
Smith, J. H. Middleton 1 10
Smith, J. H. Middleton 2 10
Smith-Capers, Midwest Refg. Co. & Holmes 2 600
Smith-Capers, Midwest Refg. Co. & Holmes 3 400
Smith, Phillips & Heywood 1 (Sec. 12) 300
Smith, Phillips Pet. 1 150
J. A. Whittenburg, Phillips Pet. 3 (Sec. 12) 50
Whittenburg-Mary Huff, Phillips Pet. 1 1000
Whittenburg-Jerry, Phillips Pet. 1 2000
Whittenburg-Jerry, Phillips Pet. 2 (DD) 6400
Whittenburg-Mary Huff, Phillips Pet. 3 150
Whittenburg, Phillips Pet. & Coble Oil 4 1000
E. Cockrell, Phillips Pet. & Pulaski 1 10
M. Weatherly, Prairie O. & G. 2 100
Johnson Brothers, W. R. Ramsey 1 ..... gas
Smith, Relief Oil 2 200
Smith, Roxana Pet. 1-B (50% water) 200
Smith, Roxana Pet. 2-B 1200
Smith, Roxana Pet. 3-B 55
Johnson Brothers-A, Skelly Oil 3 50% water) 500
Smith, J. L. Smith 1 25
J. A. Whittenburg, Summit Oil 2 (Recomp.) 500
H. W. Pitts, Sunny Jim Oil 2 125
J. A. Whittenburg, Sunny Jim Oil 3 492
E. Cockrell, J. D. Ward 1 450
J. A. Whittenburg, White Eagle O. & R. 2 145

Wells completed 56
Production 33,967
Dry 1
Gas 2
Gas production 90,000,000

GRAY COUNTY

Worley & Reynolds, Shamrock Pet. 1 1300

WHEELER COUNTY

H. C. Phillips, Gibson Oil 3 (Recomp. DD) 298

TEXAS PANHANDLE

Summary of Wells Completed

County—	Comp.	Prod.	Dry	Gas
Carson	3	130	0	2
Gray	1	1,300	0	0
Hutchinson	56	33,967	1	2
Wheeler	1	298	0	0
Total July	61	35,695	1	4
Total June	60	32,172	3	2
Difference	1	3,523	2	2

Summary of Wells Drilling

County—	Rigs	Drg.	S.D.	Ttl.
Carson	2	25	5	32
Gray	31	32	0	63
Hutchinson	56	332	17	405
Wheeler	4	5	3	12
Miscellaneous	12	13	8	33
Total July	105	407	33	545
Total June	184	234	36	454
Difference	79	173	3	91

(Note: *Indicates well shut down.)

CARSON COUNTY

Rigs

Sec. 115, Blk. 5, Burnett, American Refg. 8.
Sec. 12, Blk. 4, Burnett, Humble O. & R. 1.

Wells Drilling

Sec. 22, Blk. Y2, Poling, Amatex Oil 1*.
Sec. 115, Blk. 5, Burnett, American Refg. Co. 3-A (6) fsg., 7, 9.
Sec. 127, Blk. 5, Burnett, Empire G. & F. 1.
Sec. 107, Blk. 5, Burnett, Gates Oil 2*.
Sec. 1, Blk. 7, Witter, Gibson Oil 1*.
Sec. 116, Blk. 5, Burnett, Gulf Prod. 12.
Sec. 116, Blk. 5, Burnett, Gulf Prod. 13, 14.
Sec. 106, Blk. 5, Burnett, Gulf Prod. 15.
Sec. 128, Blk. 5, Burnett, Gulf Prod. 17.
Sec. 115, Blk. 5, Burnett, Magnolia Pet. 2, fsg. 3.
Sec. 107, Blk. 5, Burnett, Marland Oil 6, 7.
Sec. 116, Blk. 5, Burnett, Marland Oil A-2, 3-A, 4-A.
Sec. 127, Blk. 5, Burnett, Marland Oil 5-A.
Sec. 105, Blk. 5, Burnett, Marland Oil 1-C.
Sec. 5, Blk. 5, Deahl, Prairie O. & G. 1.
Sec. 103, Blk. 4, Garner, Republic Prod. 1.
Sec. 92, Blk. 4, Bryan, Roxana Pet. 1*.
Sec. 115, Blk. 5, Burnett, W. W. Silk 6.
Sec. 114, Blk. 5, Burnett, Sunny Jim Oil 3.
Sec. 113, Blk. 5, Burnett, The Texas Company 4.
Sec. 92, Blk. 5, Burnett, The Texas Company 8.
Sec. 127, Blk. 5, Burnett, The Texas Company 9.
Sec. 114, Blk. 4, Judon Brown, White Deer Oil 1*.

COLLINGSWORTH COUNTY

Wells Drilling

Sec. 5, Blk. 13, Williams & Combs, Gibson Oil 1*.

DALLAM COUNTY

Wells Drilling

Sec. 9, Blk. 47½, Dalhart O. & G. 1.

GRAY COUNTY

Sec. 92, Blk. B2, Bowers, Barnett Oil 1.
Sec. 10, Blk. A-6, Noble, Cranfill Oil 1.
Sec. 66, Blk. B2, Hopkins, Eagle Creek Oil 1.
Sec. 64, Blk. 3, Benton, Empire G. & F. 1.
Sec. 26, Blk. B-2, Lovett, Greenwood et al 1.
Sec. 87, Blk. 3, Holmes, Gulf Prod. 1.
Sec. 175, Blk. 3, McConnell, Gulf Prod. 1.
Sec. 88, Blk. 3, Merten, Gulf Prod. 1.
Sec. 83, Blk. 3, Worley, Gulf Prod. 2, 4.
Sec. 87, Blk. 3, Merten, Humble O. & R. 1, 2, 3, 4.
Sec. 82, Blk. 3, Merten, Magnolia Pet. 2, 3, 4, 5, 6, 7, 8, 9.
Sec. 63, Blk. 3, Benton, Marland Oil 1.
Sec. 87, Blk. 3, Merten, McMan O. & G. 1.
Sec. 82, Blk. 3, Merten, Phillips Pet. 1, 2.
Sec. 82, Blk. 3, Merten, Shamrock Pet. 3.
Sec. 83, Blk. 3, Worley-Reynolds, Shamrock Pet. 3.
Sec. 87, Blk. 3, Holmes, The Texas Company 1.
Sec. 62, Blk. 3, Worley, Wilcox-Pampa Oil 5.
Sec. 62, Blk. 3, Worley-Reynolds, Wilcox-Pampa Oil 7.

Wells Drilling

Sec. 148, Blk. B2, Bradford, Bayshore Pet. 1.
Sec. 25, Blk. 25, Dial, Constantine et al 1.
Sec. 129, Blk. 3, Hughey, Empire G. & F. 1.
Sec. 161, Blk. 3, Wall, Empire G. & F. 1.
Sec. 63, Blk. 3, Worley, Empire G. & F. 1.
Sec. 83, Blk. 3, Worley, Gulf Prod. 1.
Sec. 83, Blk. 3, Worley, Gulf Prod. 3.
Sec. 86, Blk. 3, Osborne, Humble O. & R. 1.
Sec. 83, Blk. 3, Worley-Reynolds, Humble O. & R. 1.
Sec. 82, Blk. 3, Merten, Magnolia Pet. 1.
Sec. 83, Blk. 3, Worley-Reynolds, McMan O. & G. 1.
Sec. 68, Blk. 25, Morris, Will O'Brien 1.
Sec. 63, Blk. 3, Benton, Pure Oil 1, 2, 3.
Sec. 82, Blk. 3, Merten, Shamrock Pet. 2.
Sec. 83, Blk. 3, Worley-Reynolds, Shamrock Pet. 2.
Sec. 83, Blk. 3, Worley-Reynolds, Sun Oil 1.
Sec. 3, H. & G. N., Saunders, The Texas Company 2.
Sec. 81, Blk. 3, Saunders, The Texas Company 2.
Sec. 59, Blk. 3, Combs-Worley, Wilcox-Pampa Oil 2.
Sec. 62, Blk. 3, Worley, Wilcox-Pampa Oil 4.
Sec. 62, Blk. 3, Worley-Reynolds, Wilcox-Pampa Oil 6, 8, 9, 10, 11, 12, 13, 14.
Sec. 188, Blk. 3, Bryan, Young et al 1.
Sec. 106, Blk. 3, Holmes, Young et al 1.

HALL COUNTY

Well Drilling

Sec. 8, Blk. 18, Bass, Midwest Refg. 1.

HANSFORD COUNTY

Rig

Sec. 50, Blk. 2, Tinsley, Dillard et al 1.

HARTLEY COUNTY

Rigs

Sec. 9, Blk. 2, Layman-Balfour, Deep Rock Oil 1.
Sec. 13, Blk. 13, Irving, L. L. Eslick 1.
Sec. 63, Blk., Shelton, Humble O. & R. 1.
Sec. 22, Blk. 22, Capitol Lands, McKanna 1.
Sec. 3, Blk. LS, Collins, McKanna 1.
Sec. Capitol Land tract, McKanna 1.

Well Drilling

Sec. 58, Blk. XR, Coats, Holmes 1.

HEMPHILL COUNTY

Rig

Sec. 4, G. H. & H. Survey, Shaller, Hoover et al 1.

Well Drilling

Sec. 119, Blk 41, J. S. Hood Survey, Hoover, Hoover et al 1.

HUTCHINSON COUNTY

Rig

Sec. 21, Blk. 47, Whittenberg, Amerada Pet. 2.
Sec. 13, Blk. Y, Whittenberg, Brookins & Kistler 1.
Sec. 4, Blk. Y, Kingsland, Canadian River Oil 5.
Sec. 35, Blk. 47, Yake, Clark & Hagy 1.
Sec. 14, Blk. Y, Smith, Cockrell-McIlroy 2.
Sec. 10, Blk. Y, Smith, Currie et al 1.
Sec. 23, Blk. M-23, Jasper, Dominion Oil 1.
Sec. 19, Blk. Y, Weatherly, Empire G. & F. 5, 6, 7.
Coble, Get Oil 1.
Sec. 74, Blk. 46, Johnson, Phillips Pet. (Hagy) 1.
Sec. 25, Blk. 47, Dial, Gulf Prod. 19, 20.
Sec. 66, Blk. 46, Johnson, L. R. Hagy 1.
Christian, W. Scott Heywood 2.
Sec. 6, Blk. Y, Kingsland, Hughes 8-A.
Sec. 6, Blk. B-4, Kingsland, Hughes 4-B.
Sec. 11, Blk. Y, Smith, Japhet Oil 3.
Sec. 20, Blk. Y, Johnson, Marland Oil 6-A.
Sec. 16, Blk. X02, Perkins Dial, Marland Oil 1-A.
Sec. 14, Blk. Y, Smith, W. W. McIlroy et al 2, 3.
Sec. 14, Blk. Y, Smith, W. W. McIlroy & Kistler 5, 6.
Sec. 21, Blk. Y, Gray, McMan Oil 3.
Sec. 66, Blk. 46, Weatherly, McMan Oil 3, 4.
Sec. 7, Blk. Y, Smith, Middleton Oil 1.
Sec. 3, Blk. Y, Cockrell, Newby Oil 2.
Sec. 12, Blk. Y, Smith, Panhandle 1.
Sec. 12, Blk. Y, Smith, Phillips et al 2, 3.
Sec. 13, Blk. Y, Whittenberg, Phillips Pet. 19.
Sec. Tomlinson Survey, Whittenberg, Phillips Pet. Co.-Elra 3.
Sec. 6, Mary Whitley, Johnson, Phillips Pet. Co.-Finklea 2.
Sec. 67, Blk. 46, Whittenberg, Phillips Pet. Co.-Patburg 3.
Sec. 4, Blk. Y, Kingsland, Phillips Pet. Co.-Jeanette 3.
Sec. 5, Blk. Y, Smith, Phillips Pet. Co.-J. R. 1.
Mary Whitley, Whittenberg, Phillips-Gibson 3, 4.
Sec. 69, Blk. 46, Johnson, Prairie-Phillips 3-B, 4-B.
Sec. 12, Blk. Y, Smith, Riley-Henry 1.
Sec. 4, Blk. Y, Kingsland, Wall Morrison 1.
Sec. 4, Blk. B-4, Cunningham, Skelly Oil 2.
Sec. 4, Blk. B-4, Cunningham, Skelly Oil 4.
Sec. 14, Blk. Y, Smith, Sunburst Oil 3, 4.
Sec. 3, Blk. Y, Cockrell, Ward & Snell 2.
Sec. 13, Blk. Y, Whittenberg, Westex Oil 4, 9.
Hedgecoke, White Eagle Oil 1, 2, 3, 4.

Wells Drilling

Sec. 2, Blk. B3, Cockrell, Alaska Pet. 1.
Sec. 13, Blk. Y2, Bivins, Amarillo Oil B-4.
Sec. 89, Blk. Z, Whittenberg, Amerada Pet. 1, 2, 3, 4.
Sec. 19, Blk. Y, Weatherly, American Refg. 1, 2.
Sec. 1, Blk. J, Yake, Anderson & Prichard 1.
Sec. 11, Blk. Y, Smith, Apex Oil 2.
Sec. 5, Blk. M-23, Lewis, Badger Oil 2.
Sec. 3, Blk. B-4, Pritchard, Barnsdall 1.
Sec. 10, Blk. M-21, Watkins, Bear Creek Oil 1.
Sec. 37, Blk. 47, Merchant, Big Creek Oil 1.
Sec. 14, Blk. Y, Smith, Buffalo Oil 1.
Sec. 12, Blk. Y, Whittenberg, Canyon Oil 1, 4, 5.
Sec. 1, Blk. B-4, Pritchard, Center Dome Oil 1, 2.
Sec. 12, Blk. Y, Whittenberg, Coble Oil & Whittenberg 1, 3.
Sec. 14, Blk. Y, Smith, Cockrell-McIlroy 3, 4.
Sec. 14, Blk. Y, Smith, Currie-Phillips 2, 3.
Sec. 20, Blk. Y, Grace-Johnson, Delmar Oil 1, 2, 4.
Tract 8 (Mary Whitley) Johnson, Derby Oil 2.
Sec. 20, Blk. Y, Johnson, Derby Oil 1.
Mary Whitley, Whittenberg, Devonian Oil 2.
Tract 3, Mary Whitley, Johnson, Devonian Oil 3, 4, 5.
Sec. 66, Blk. 46, Johnson, Devonian Oil 1-A.
Sec. 11, Blk. Y, Smith, Dixon Creek Oil 6, 7, 10, 11.
Sec. 14, Blk. Y, Smith, Dixon Creek Oil 12, 13, 14, 16, 19, 20.
Sec. 12, Blk. Y, Smith, Dixon Creek Oil 27, 28.
Sec. 5, Blk. Y, Smith, Dixon Creek Oil 34, 35, 36.
Sec. 15, Blk. X02, Whittenberg, Douglas Oil 1-B.
Sec. 21, Blk. Y, Johnson, Dunnigan et al 1.
Sec. 13, Blk. Y, Whittenberg, Dunnigan et al 2.
Sec. 11, Blk. Y, Smith, Echo Oil 1, 3, 4*.
Sec. 68, Blk. 46, Johnson, Empire G. & F. 1.
Sec. 21, Blk. Y, Johnson, Empire G. & F. 1-B.
Sec. 19, Blk. Y, Weatherly, Empire G. & F. 1, 2, 4.
Williams-Heath, Corner Flowers et al 1.
Sec. 19, Blk. Y, Weatherly, Fly-Blackburn Oil 2.
Sec. 18, Blk. M-23, McCormick, Gibson*.
Sec. 4, Blk. Y, Jeanette Kingsland, Phillips Pet. 1.
Sec. 4, Blk. Y, Kingsland, Phillips Pet.-Gibson 1.
Sec. 4, Blk. Y, Kingsland-Jeanette, Phillips Pet. 2.
Sec. 6, Blk. B-4, Kingsland, Phillips Pet. 2.
Sec. 28, Blk. Y, Johnson, Phillips Pet.-Whitehead 1.
Sec. 5, Blk. M-26, Hodges, Golding & Phillips 1.
Sec. 27, Blk. 47, Whittenberg, Goldeline Oil 1-A, 2-A.
Sec. 89, Blk. Z, Whittenberg, Goldeline Oil 1-B.
Sec. 128, Blk. 5, Burnett, Gulf Prod. 16.
Mary Angline, Christian, Gulf Prod. 1.

W. S. Christian, Christian, Gulf Prod. 1.
Sec. 3, Blk. Y, Cockrell, Gulf Prod. 2, 3, 4.
Sec. 90, Blk. Z, Dial, Gulf Prod.-Panhandle 11, 12.
Sec., Blk. 1, Dial, Gulf Prod.-Panhandle 13, 14.
Sec. 24, Blk. 47, Dial, Gulf Prod.-Panhandle 15.
Sec. 1, Blk. 1, Dial, Gulf Prod.-Panhandle 16.
Sec. 25, Blk. 47, Dial, Gulf Prod.-Panhandle 17, 19.
Sec. 1, Blk X02, Whittenberg, Gulf Prod.-Dial 21, 22.
Sec. 1, Blk. 1, Whittenberg, Gulf Prod.-Dial 23, 24.
Sec. 1, Blk. X02, Whittenberg, Gulf Prod.-Dial 25.
Sec. 66, Blk. 46, Johnson, Gulf Prod. 1*, 2, 3, 4, 5, 6, 7, 8.
Sec. 70, Blk. 46, Johnson, Gulf Prod. 9, 10, 11*, 12.
Sec. 75, Blk. 46, Sanford, Gulf Prod. 1.
Sec. 2, Blk. X03, Sanford, Gulf Prod. 1.
Mary Whitley, Whittenberg, Gulf Prod. 2, 3, 4, 5, 1.
Mary Whitley (32), Whittenberg, Gulf Prod. A-2.
Mary Whitley Tract 29, Whittenberg, Gulf Prod. A-3.
Mary Whitley Tract 1, Whittenberg, Gulf Prod. A-4.
Sec. 89, Blk. Z, Whittenberg, Gulf Prod.-Panhandle B-2.
Sec. 89, Blk. Z, Dial, Gulf Prod.-Panhandle B-3.
Sec. 27, Blk. 47, Whittenberg, Gulf Prod. D-2.
Sec. 65, Blk. 46, Whittenberg, Gulf Prod. 1-E*, 2-E, 3-E, 4-E, 5-E.
Sec. 33, Blk. M-21, Harvey, Harvey Oil 1.
Sec. 5, Blk. Y, Smith, Herring & McIlroy 3*.
Sec. 31, Blk. Y, Christian, W. Scott Heywood 1.
Sec. 14, Blk. Y, Smith, Heywood & Phillips 1, 2.
Sec. 6, Blk. Y, Kingsland, Hughes 4, 10-A, 11-A, 16-A, 17-A.
Sec. 6, Blk. B-4, Kingsland, Hughes 1-B, 2-B, 3-B.
Sec. 4, Blk. M-18, Thompson, Inspiration Oil 1.
Sec. 11, Blk. Y, Smith, Japhet Oil 1, 2.
Sec. 11, Blk. Y, Smith, Lenix & Stover 2.
Tract 2, Mary Whitley, Johnson Lenix 1.
Sec. 11, Blk. Y, Smith, Lenix 1.
Sec. 11, Blk. Y, Smith, Lucky Ten Oil 2, 3, 4.
Sec. 5, Blk. L, Harvey, Madden et al 1.
Sec. 128, Blk. 5, Burnett, Marland Oil 1-D.
Sec. 6, Blk. 1, Johnson, Marland Oil 1.
Sec. 20, Blk. Y, Johnson, Marland Oil 1-A, 2, 3-A, 4-A.
Sec. 1, Blk. X02, Perkins-Dial, Marland Oil 1, 2, 3, 4, 5, 6, 7, 8.
Sec. 29, Blk. 47, Martha Reimer, Marland Oil 1.
Sec. 76, Blk. 46, River Bed, Marland Oil 1.
Sec. 19, Blk. Y, Weatherly, Marland Oil 1-A, 3-A, 4-A, 1-B, 2-B, 3-B, 1-C, 2-C, 3-C.
Sec. 65, Blk. 46, Whittenberg, Marland Oil 1, 2, 3, 4, 5.
Mary Whitley, Whittenberg, Marland Oil 1-A, 2-A, 3-A, 4-A, 5-A, 6-A, 7-A.
Sec. 35, Blk. M-23, Belle Wisdom, Marland Oil 1.
Sec. 9, Blk. M-15, Jones, Matthewson 1.
Sec. 14, Blk. Y, Smith, W. W. McIlroy 1.
Sec. 14, Blk. Y, Smith, S. D. & W. W. McIlroy 4, 7, 8.
Mary Whitley, Whittenberg, McCamey & Sheerin 1, 2*, 3.
Sec. 12, Blk. Y, Smith, McKnight & Holmes 2*, 3.
Sec. 65, Blk. 46, Archer, McMan O. & G. 1, 2.
Sec. 65, Blk. 46, Whittenberg, McMan O. & G. 3.
Sec. 5, Blk. Y, Servey Holmes, McMan O. & G. 7.
Sec. 21, Blk. Y, Martin Gray, McMan O. & G. 1, 2.
Sec. 21, Blk. Y, Gray, McMan O. & G. 3.
Sec. 66, Blk. 46, Weatherly, McMan O. & G. 2*.
Sec. 70, Blk. 46, Johnson, Midwest Refg. 1.
Sec. 12, Blk. Y, Smith Tyrell, Midwest Refg. 1.
Sec. 5, Blk. Y, Smith, Midwest-Holmes-Curry 1, 2.
Sec. 20, Blk. Y, Johnson, Minnehoma Oil 1.
Twitchell, Murchison & Fain 1, 2.
Sec. 82, Blk. 46, Tenford, Paramount Oil 1.
Sec. 64, Blk. 46, Barnum, Phillips Pet. 2.
Sec. 84, Blk. 46, Bivins, Phillips Pet. 2.
Sec. 12, Blk. Y, Whittenberg, Phillips Pet. 5.
Sec. 13, Blk. Y, Whittenberg, Phillips Pet. 6.
Sec. 12, Blk. Y, Whittenberg, Phillips Pet. & Coble Oil 7, 8, 9.
Sec. 13, Blk. Y, Whittenberg, Phillips Pet. 10.
Sec. 12, Blk. Y, Whittenberg, Phillips Pet. & Coble Oil 11.
Sec. 13, Blk. Y, Whittenberg, Phillips Pet. 12, 13, 14, 15, 16, 17, 18.
Sec. 64, Blk. 46, Johnson, Phillips Pet.-Dorset 1.
Sec. 21, Blk. Y, Johnson, Phillips Pet.-Gordon 1, 2, 3.
Tract 5, Mary Whitley, Whittenberg, Phillips Pet. 2, 3, 1.
Mary Whitley, Whittenberg, Phillips Pet.-Haines 2.
Sec. 12, Blk. Y, Mary Huff, Phillips Pet. 2, 4*.
Sec. 66, Blk. 46, Johnson, Phillips Pet.-Montford 1.
Sec. 68, Blk. 46, Neil, Phillips Pet. 1.
Sec. 20, Mary Whitley, Whittenberg, Phillips Pet.-Patton 1*, 2, 3.
Mary Whitley, Whittenberg, Phillips Pet.-Potter 4*, 5.
Sec. 13, Blk. Y, Whittenberg, Phillips Pet.-Jerry 1.
Sec. 13, Blk. Y, Whittenberg, Phillips Pet.-Parks 3, 4*, 5.
Sec. 72, Blk. 46, Stevens, Phillips Pet. 1.
Sec. 63, Blk. 46, Whittenberg, Phillips Pet.-Gibson 2, 3, 4, 5, 6, 7.
Mary Whitley, Whittenberg, Phillips Pet.-Gibson 2.
Sec. 12, Blk. Y, Smith-Capers, Phillips Pet. 2, 3.
Sec. 6, Mary Whitley, Whittenberg, Phillips Pet.-Walling 1.
Tract 7, Mary Whitley, Johnson, Phillips Pet.-Williams 1, 2.
Sec. 12, Blk. Y, Whittenberg, Phillips Pet. 1, 3, 4.
Mary Whitley, Whittenberg, Phillips Pet.-Pulaski 2.
Sec. 4, Blk. B-4, Johnson, Prairie O. & G. 2-A.
Sec. 64, Blk. 46, Johnson, Prairie O. & G. 3-A, 4-A, 5-A.
Sec. 20, Blk. Y, Johnson, Prairie O. & G. 6-A, 7-A, 8-A, 9-A, 10-A.
Sec. 20, Blk. Y, Johnson, Prairie-Phillips 11-A, 12-A, 13-A, 14-A.
Sec. 21, Blk. Y, Johnson, Prairie et al 15-A, 16-A.
Sec. 64, Blk. 46, Johnson, Prairie O. & G. 17-A*.
Sec. 20, Blk. Y, Johnson, Prairie O. & G. 18-A.
Sec. 4, Blk. B-4, Johnson, Prairie O. & G. 2-B.
Sec. 23, Blk. Y, Weatherly, Prairie O. & G. 2, 3.
Sec. 19, Blk. Y, Weatherly, Prairie O. & G. 7, 8.
Sec. 11, Blk. Y, Smith, Relief O. & G. 1, 2, 3, 4.
Sec. 11, Blk. Y, Smith, Riley-Henry-Holmes 1, 2.
Sec. 86, Blk. 46, Bivins, Roxana Pet. 1.
Sec. 6, Blk. M-26, Jasper, Roxana Pet. 1*.
Sec. 14, Blk. Y, Smith, Roxana Pet. 4.
Sec. 11, Blk. Y, Smith, Roxana Pet. 4-B, 5-B.
Tract 9, Mary Whitley, Johnson, Ryan Pet. 2, 3.
Sec. 95, Blk. 5-T, Jarvis, W. W. Silk 1.
Sec. 43, Blk. 47, Williams, Sinclair O. & G. 1.
Sec. 4, Blk. B-4, Cunningham, Skelly Oil 3.
Sec. 20, Blk. Y, Johnson, Skelly Oil 1, 2, 3, 4, 5.
Sec. 22, Blk. 5, Whittenberg, Skelly Oil 4.
Sec. 22, Mary Whitley, Whittenberg, Skelly Oil 5.
Sec. 6, Blk. Y, Kingsland, Skia-Tex Oil 3, 4.
Sec. 7, Blk. X, Smith, J. L. Smith 2.
Sec. 12, Blk. Y, Whittenberg, Smith & Bynum 2.
Sec. 5, Blk. Y, Smith, Spring Creek Oil 3.
Sec. 13, Blk. Y, Whittenberg, Summitt Oil 1.
Sec. 14, Blk. Y, Smith, Sunburst Oil 1, 2.
Sec. 7, Blk. M-21, Pitts, Sunny Jim Oil 2.
Sec. 12, Blk. Y, Whittenberg, Sunny Jim Oil 1, 2, 3.
Sec. 33, Blk. Z, Lydl, Sunrise Oil 1.
Blk. B-3, Cockrell, Swindler et al.
Sec. 132, Blk. 5, Burnett, The Texas Company 7.
Sec. 62, Blk. 46, Whittenberg, Texhoma O. & R. 1.
Sec. 1, Johnson, Texhoma O. & R. 1.
Sec. 5, Blk. Y, Smith, Triangle 1, 2, 3.
Sec. 34, Blk. 47, Merchant, Wentz, L. H. 1*.
Sec. 2-A, Blk. M-26, Reimer, L. H. Wentz 1*.
Sec. 13, Blk. Y, Whittenberg, Westex Oil 3, 5, 6, 7, 8.
Sec. 4, Blk. B-4, Grace-Johnson, White Eagle O. & R. 1.
Sec. 64, Blk. 46, Hagy-Johnson, White Eagle O. & R. 1, 8.
Sec. 64, Blk. 46, Johnson, White Eagle O. & R. 2, 7, 8.
Sec. 11, Blk. Y, Smith, White Eagle O. & R. 1, 2, 4.
Sec. 12, Blk. Y, Whittenberg, White Eagle O. & R. 1.

LIPSCOMB COUNTY

Rig

Sec. 504, Blk. 43, Barton, Snyder et al 1.

MOORE COUNTY

Wells Drilling

Sec. 59, Blk. O18, Masterson, Amarillo 1-J.
Sec. 19, Blk. 44, Thompson, Amarillo 1.
Sec. 68, Blk. 3, Sneed, Cadmen & Martin 1.
Sec. 25, Blk. 1, Sneed, Flowers 1.
Sec. 30, Blk. 6-T, Sneed, Moore Oil 1.
N. Jones, Sneed, Phillips Pet. 1.
Sec. 25, Blk. 6-T, Sneed, Prairie O. & G. 2.

OCHILTREE COUNTY

Wells Drilling

Sec. 579, Blk. 43, Stickler, Burton 1*.
Sec. 471, Blk. 43, Moore, McCorkle Pipe Line Co. 1*.
Sec. 923, Blk. 43, Boren, Ochiltree Oil 1*.

POTTER COUNTY

Wells Drilling

Sec. 25, Blk. O18, Bivins, Amarillo Oil A-5.
Sec. 89, Blk. 9, Bush, Gulf Prod. 1*.

ROBERTS COUNTY

Rigs

Clay County school land, Hammon, Charles Page et al 1.
Clay County school land, Hammon, Trammell et al 1.

Wells Drilling

Sec. 7, Blk. A-5, Ledwick, Big Bend Oil 1*.
Sec. 106, Blk. C, Jones, Gibson 1.

SHERMAN COUNTY

Rigs

Sec. 161, Blk.* 1-C, Jones, Phillips Pet. 1.

Wells Drilling

Sec. 35, Blk. 2, Bivins, Eclipse Oil 1*.
Sec. 35, Blk. 3-B, Bivins, Get Oil 1*.

WHEELER COUNTY

Rigs

Sec. 41, Blk. B-24, H. J. Phillips, Gibson Oil 2.
Sec. 12, Blk. 27, Company, Mid-Kansas O. & G. 1.
Sec. 55, Blk. 24, Binkley-Cain, Murchison & Fain 1.
Sec. 88, Blk. 17, Cody, Upham Gas Co. 1.

Wells Drilling

Sec. 42, Blk. 24, Bentley, Gibson Oil 1.
Sec. 70, Blk. 23, Rockelhaffer, McFarland Oil 1*.
Sec. 21, Blk. A-8, Shelton est., Midwest Refg. 1.
Sec. 11, Blk. 27, Jackson, Scott-Varner 1.
Sec. 53, Blk. A-4, Sorenson, South Vernon Oil 1*.
Sec. 12, Blk. 27, Company, Texhoma O. & R. 1*.
Sec. 83, Blk. 17, O'Gorman, Vaughn 1.
Sec. 13, Blk. A-5, Woodley, Woodley 1.

NORTH TEXAS

ARCHER COUNTY

Rigs

Wilson, Crown Central Pet. 4.
Moss, Humble O. & R. 1.
Carter, Park Priddy et al 1.
Turbeville-A, Simms Oil 3, 4.
Plowman, Stewart Dev. Co. 8.
Hudson, Magnolia Pet. 1.

Wells Drilling

Pace, Allday Oil 1.
Turbeville, American Refg. et al 1.
Hutcheson, Caldwell and Consolidate Oil 5, 6.
Parkey, Empire G. & F. 1.
Wilson, Heartwell 1*.
White, Jetter & Anderson 1.
Wilson-N, Kentucky Oil 2.
Dale Brothers, Kerloy et al 1.
Turbeville, Marland Oil 1.
Wilson-A, Marland Oil and Trahan 1.
Andrews, Mid-Kansas O. & G. 2.
Newell, Panhandle Refg. 1.
Shaw-B, Shaw et al 8.
Turbeville-A, Simms Oil 2.
Stonewall Jackson Camp, Sun Oil 1.
Turbeville, The Texas Company 1.
Ford, Whiteman et al 2*.
Moss, Young 1*.
Browning & C., Cook & Reeder 1.
Kunkel, Cook & Reeder 1.
Connor, Cosden and Consolidated Oil 1.
Thomas, Gates et al 3.
Crawford, Golding & Cochran 1.
Farmer, Golding & Cochran 1*.
Prideaux, Golding & Cochran 2*.
Hamilton, Humble O. & R. 15.
Kunkel, Humble O. & R. 1.
Slopansky, King & Looney 1.
Prideaux, Lewis Oil Corp. 4*.
Kunkel, M. & V. Oil 7, 8.
Deskin, Maer & Staniforth 1.
Portwood, Magnolia Pet. 13.
Richardson, Magnolia Pet. 1.
Thomas-B, Marland Oil 1.
Deitrich, Murchison & Fain 4, 5.
Logan-D, Murchison & Fain 1.
Skinner & Smith, Muse & Robinson 1.
Abercrombie, Pandem Oil Corp. 1.
Hudson, Pandem Oil Corp. 2, 4, 5.
Threet, Pandem Oil Corp. 1.
Williams, Phillips Pet. 1.
Prideaux, Pitts et al 1*.
Prideaux, Plains Prod. Co. 2*.
Baggett, Reed & Wooden 1.
Farmer-B, Tidal Oil 1.
Harmonson, Trammell & Moore 1*.
Prideaux, Lee Wilson 1.
Jackson et al-A, Gulf Prod. 12.
A. P. Nichols, Gulf Prod. 42.
C. L. Abercrombie-A, Gulf Prod. 2.
C. Bressler et al, Gulf Prod. 1.
A. J. Ikard, Gulf Prod. 2.
M. Kelly, Gulf Prod. 1.
H. L. Ward et al-C, Gulf Prod. 1.
Rigs, 7; wells drilling, 50; shut down, 9; total, 66.

BROWN COUNTY

Rigs

Kennedy, Choate et al 1.
Williams, J. S. Cosden 4.
Graham est., Douglas et al 2.
Lot 9, Evans 1.
J. H. Allen, Humble O. & R. B-8.
Broom, Maxwell & Turman 1.

Wells Drilling

Turner, Amerada Pet. Corp. 1*.
Holt, Anderson & Shults 1*.
McClanahan, Berryman et al 1*.
Boysen, Boysen & Ramsier 1.
Weedon, Brown 1*.
Stopp, Carter et al 1*.
Hewley, Christie et al 1.
Armstrong, Clark & Kimbell 1.
Arledge, J. S. Cosden 1.
East Westerman, Cosden 1.
Church lot, Curry & Moore 1.
Kilgore Brothers, Curry & Moore 1, 2.
Wooldridge, Curry & Moore 1, 2.
Graham est., Douglas et al 1-A*.
Reynolds, Eastland Oil 1.
Smith, Empire G. & F. 1.
Carmichael, Gibson Oil 1*.
White, Gibson Oil 1.
Tetson, Gilman & McMurray 9, 10.
Henson, Gillespie 3, 4.
Byler, Gray 1.
Keller, Holmeman 1.
Byrd, Huber Oil 1-B.
Kilgore Brothers, Huffman 2*, 3, 4.
Arledge, J. K. Hughes Dev. Co. 14.
J. H. Allen, Humble O. & R. B-9.
Armstrong, Humble O. & R. 1*.
Foster, Humble O. & R. 2, 3.
Hodnett, Humble O. & R. 5*.
E. P. and W. H. Kilgore, Humble O. & R. 6-B, 7-B, 8-B, 3-C, 4-C, 5-C, 2-D, 3-D.
J. C. Kilgore, Humble O. & R. 3-B, 6-B.
Kilgore Brothers, Humble O. & R. 1.
Leatherwood, Humble O. & R. 5*.
Edington, Ingleright et al 1.
Graham est., Jarvis et al 1.
Cook, Keough Brothers 1.
Foster, Kane Prod. 1.
Hensiee, Louisiana O. & R. 3.
Foster, McKenna 2, 3, 5.
W. M. Wooldridge, McLester Oil 1-A, 6.
Suttles, Midwest Exploration 8, 10.
Purcell, Mims et al 1.
Keeler, Micham 1.
Lehman, Moore 1.
Eubanks, Murphy 1.
Westman, Pandem Oil Corp. 5.
Prater, Phillips Pet. 3.
Armstrong, Prairie O. & G. 2, 3.
Kilgore Brothers, Prairie O. & G. 1.
Johnson, Prairie O. & G. 1.
Trammel, Prairie O. & G. 2.
Turner, Prairie O. & G. 1.
Wooldridge, Prairie O. & G. 7.
Jones, Ratblott 1*.
Prater, Rhodes & Higher 11*.
Suttles, Root et al 4, 13.
Buzbee, Root & Rhodes 1*.
King, Roxana Pet. 1.
Newton, T. B. Slick 2*.
Eubanks, States Oil 1*.
Edington, The Texas Company 6.
Hickman, The Texas Company 1.
Johnson, The Texas Company 1.
Stout, The Texas Company 1.
Lee, Thomas & Reynolds 1.
Roe, Troutt et al 1.
Newton, West & H-Y Oil 5, 8.
Keller, Williamson et al 2, 3.
Wooldridge, Williamson et al 1.
Bettis, Arkansas Fuel Co. 1*.
Ferguson, Arkansas Fuel Co. 1.
McDaniel, Campbell & Rosenfield 1*.
Pierce, Campbell & Rosenfield 1*.
Sears, Evans et al 1.
Taylor, Fain et al 1*.
Taber, Holliday et al 1.
Denman, Hynes et al 1*.
Smith, Lightfoot et al 1*.
Hester, Mitcham 1*.
Eabs, Moore & Fuhrman 1*.
Warnock, Morris 1*.
Mattock, Savings & Scoggings 1*.
Cleveland, Schoonmacher 1.
Hall, Shadbolt & Creighton 1*.
Rigs, 6; wells drilling, 80; shut down, 27; total, 113.

CALLAHAN COUNTY

Rigs

Long, Brown & Co. 2.
Boydston, Gibson & Johnson 1*.
Seale est., Mississippi Valley Oil 1.
Bond, Prairie O. & G. 4.

Wells Drilling

Windham, Adams et al 1.
Long, Amerada Pet. 2.
Finley, Borealis Oil 1.
Sawyer, Bradstreet et al 1.
Long, Brown & Co. 1.
Cutbirth, Canary et al 1*.
Derrington, Canary O. & G. 5.
Bond, Cranfill & Reynolds 1.
Carey, Evans et al 1*.
Miller, Flannigan et al 1*.
Ellis, Franch & Lewis 1.
Jackson, Goodloe & Duffy 1.
Powell & Leggett, Hughes Dev. Co. 1.
Moore, Mission Drlg. Co. 1.
Cutbirth, Mississippi Valley Oil 1*.
Huling, Moore 1.
Hays, Oklavania Oil 1*.
Bond, Prairie O. & G. 3, 5.
Cunningham, Prairie O. & G. 4.
Derrington, Prairie O. & G. 2.
McDonough, Prairie O. & G. 9.
Young, Roeser & Pendleton 1*.
Bond, T. B. Slick 2.
McDonough, T. B. Slick 1.
Rigs, 4; wells drilling, 21; shut down, 6; total, 31.

COLEMAN COUNTY

Rigs

Dibrell, Altitude Oil 1.
Dibrell, Burke-Greis Oil and Gwinnup 8*.
Dibrell, Zwiefel et al 1.
Witkowski, World Oil 1.

Wells Drilling

Dibrell, Burke-Greis Oil 4*.
Dibrell, Burke-Greis Oil and Gwinnup 4.
Sealey & Smith, Curtis et al 1*.
Crawford, English et al 1*.
Harris, English 1*.
Overall, Flannigan 1.
Dibrell, Gilman et al 1.
Weathered, Humble O. & R. 1.
Smith, Jewell & Sill 1.
Dibrell, Kirby Pet. 3.
Lowe, McChesney 1*.
Morris, Magnolia Pet. 17.
Dibrell, Mid-Kansas O. & G. 1*, 2*.
Dibrell, Midwest Exploration 5-A.
Morris, Midwest Exploration 1.
Harris, National O. & R. 2.
Harris, Ramsey & Maxey 1.
Morris, Ross & Wright 1.
Hubbard, Root 1.
Gray, Urban 1*.
Dibrell, Western Oil Sales Corp. 2.
West, Wilford et al 1.
Hutchings, Wright & McNallen 1.
Campbell, Bartlett 1.
Ellis, Canary et al 1*.
Pfluger, Jewell & Sill 1.
Harris, Kirby Pet. 1.
Pitty, McKenzie et al 1*.
Harris, Monroe Prod. Co. 1.
Overall, Monroe Prod. Co. 2*.
Burk, Morrison & St. John 1*.
Cox, Neely et al 1.
Johnson, Newby et al 1*.
Timmins, Ross & Cooter 1*.
Stewardson, Rose & O'Conner 1*.
Garrett, Shadbolt & Creighton 1*.
Deavers, Van Eman et al 1.
Rigs, 4; wells drilling, 22; shut down, 16; total, 42.

EASTLAND COUNTY

Rigs

Norris, Corzelius Brothers 1.
Parsons, Humble O. & R. 4, 5, 6.
Pritchard, Moore et al 1.
Fox, Parton & Meyers 1.
Rosen, Arnold et al 1.
Kemp, Corzelius Brothers 1.
Scott, Mathews & Terrell 1.
Parsons, Gulf Production Co. 6.

Wells Drilling

Allison, Corzelius Bros. 1*.
Garrett, Corzelius Bros. 1.
Hankins, Gates Oil Co. 5.
Richmond, Greene Production Co. 1.
Parsons, Humble Oil & Refining Co. 2, 3.
Ford, Magnolia Pet. Co. B-1.
Farmers State Bank, Mid-Kansas O. & G. 1.
McFadden, Panhandle Refining Co. 1.
Mates, Parsons et al 5.
Robertson, Parsons et al 1.
Fox, Shinbolt & Haslip 1.
Wright, Smith et al 2.
Davenport, States Oil Corp. 4.
Scott, Teatsworth et al 10.
Wright, The Texas Company 1.
Butler, Texas Pacific Coal & Oil Co. 1.
Durocher, Texas Pacific Coal & Oil Co. 1.
Van Norman fee, Texas Pacific Coal & Oil Co. 1.
Grove, H. H. Adams et al 1, 2*.
G. W. Hill, Barkley & Crotty 1.
Proctor et al, Eastland Oil Co. 1.
Murrell, Hamon & Conley 1.
Owen et al, Hickok Prod. & Dev. Co. 1*.
Fee, Lewis et al 1*.
Johnson, McBride 1*.
Nunnally, Murchison & Fain 1.
Clark, Navarro Oil Co. 1.
White, Rumbough & Thompson 1.
Allen, Shasta Oil Co. 1*.
Cove, World Oil Corp. 1.
W. C. McFadden, Gulf Production Co. 1.
Parsons, Gulf Production Co. 2, 3*, 4, 5.
J. C. Parsons-A, Gulf Production Co. 5, 6.
Kinnebrew, Gulf Production Co. 7.
Rigs, 10; wells drilling 32; wells shut down, 8; total, 50.

JACK COUNTY

Rigs

Preston, Buttram Pet. Co. 5.
Cullers, Seaboard Oil Co. 2.

Wells Drilling

Bowen, Bytex Oil Co. 1*.
W. L. Preston, Baytex Oil Co. 1.
Loving, Burke-Greis Oil Co. 1.
Cullers, Buttram Pet. Co. 1.
Preston, Buttram Pet. Co. 4.
Bailey, Conklin et al 1.
Bloodworth-B, Cowboy Oil Co. 1.
Gillespie, Crabb, McNeill et al 1*.
Thompson, Dingee et al 1*.
Snedeker, Gutthrie et al 5.
Snedeker, Hester, Hawkins & Staley 1.
Hoefel, McElreath, Suggett & Phillips 1.
Gray, Rochelle et al 1.
First Natl. Bank, Security Drlg. Co. 1.
Carpenter estate, Watchorn Oil & Gas Co. 1.
Rollins, Wellman et al 1.
Rigs, 2; wells drilling, 13; wells shut down, 3; total, 18.

MONTAGUE COUNTY

Rigs

J. W. Maddox, Harris & Simons 2.
J. W. Maddox, Humble Oil & Refining Co. 4.
J. W. Maddox, E. L. Smith Oil Co. 3.
Steadman, Universal Oil Co. 1.

Wells Drilling

N. J. Howard, Arco Oil Co. 1.
Lemon, Benton & Woods, Lesh & McCall 1.
Converns, Commercial Pet. Co. 1.

J. W. Maddox, Empire Gas & Fuel Co. 1.
J. W. Maddox, Farlan Oil Co. 1.
Flint, Farmer Creek Oil Co. 1.
J. W. Maddox, F. H. E. Oil Co. 1.
Hinds-A, F. H. E. Oil Co. 7.
Howard-B, F. H. E. Oil Co. 1.
Maddox, Gracey et al 1.
R. Hinds, Humble Oil & Ref. Co. 11.
J. W. Maddox, Humble Oil & Ref. Co. 3.
N. J. Howard, McMan Oil & Gas Co. 1.
J. W. Maddox, Newblock Oil Co. 3.
J. E. Crow, Pure Oil Co. 1.
L. Keck, Pure Oil Co. 1.
Jones, Pure Oil Co. 1.
Oldham-A, Pure Oil Co. 3, 4.
Bouldin, The Texas Company 1.
Gist-A, The Texas Company 13, 14, 15.
Gist-B, The Texas Company 3.
Howard-B, The Texas Company 1.
Oldham, The Texas Company 10.
Maddox-A, The Texas Company 2.
J. W. Maddox, The Texas Company 1, 2*.
J. E. Martin, The Texas Company 1.
Howard, Texhoma Oil & Refining Co. 9.
Bouldin-A, Texhoma Oil & Refining Co. 1.
Howard-A, Texhoma Oil & Refining Co. 6, 7.
Rowland, Texhoma Oil & Refining Co. 3.
Boedecker, Grigsby Oil Co. 1.
Rigs, 4; wells drilling, 35; wells shut down, 1; total, 40.

SHACKELFORD COUNTY
Rigs
Nail, Carter Development Co. 3.
Dyer, Gibson & Johnson 1.
Newell, Gibson & Johnson 1.
Reynolds, Heck et al 3.
Reynolds, Hope Petroleum Co. 10.
Moberly, Magnolia Petroleum Co. 2.
Sedwick, Milham Corp. of Texas 2.
W. I. Cook, Roeser & Pendleton and Marland Oil Co. 18-A, 84.
W. I. Cook, Roeser & Pendleton, 7-B-84, 14-B-85.
Wells Drilling
Davis, Amerada Petroleum Corp. 1.
Nail, Carter Development Co. 2.
English, Carter et al 1.
Colbert, Domestic Oil Co. 1.
Erharat, Gallagher & Howland 1.
Owens, Gilliam & Logan 1.
Davis, Godley & Sowell 1.
J. S. Willis-A, Gulf Production Co. 1.
Reynolds, Haile & Knight 1.
Poindexter, Hope Petroleum Co. 1.
Reynolds, Hope Petroleum Co. 8, 9.
Diller Bros., Hughes et al 1.
Cook, Humble Oil & Refining Co. 10.
Davis, Independent Oil & Gas Co. 1*.
Powers, Jones 1.
Midkiff, Magnolia Petroleum Co. 1.
Terry, Magnolia Petroleum Co. 6.
Davis, Marland Oil Co. 1.
Matthews, Marland Oil Co. 1.
Cannon, Melton Oil Co. 1.
Newell, Merry Brothers & Perini 1.
Alexander, Milham Corp. of Texas 1.
Davis, Morton 1*.
Snyder, Moutray Oil Co. 3-B.
Matthews, Overlees 2.
Flippen, Panhandle Refining Co. 1.
Jeter, Reclamation Oil Co. 1.
W. I. Cook, Roeser & Pendleton and Marland Oil Co. 14-A-84, 16-A-84, 17-A-84, 19-A-84, 7-A-85*, 1-A-90.
W. I. Cook, Roeser & Pendleton, 10-B-85, 13-B-85.
Nail, Roeser & Pendleton 1-A-121.
Dyer, Southern Petroleum Explo. Co. 1.
Poindexter, Spoonts et al 1*.
Flippen, Terry et al 1.
Poindexter, Waterbury et al 1.
Rigs, 10; wells drilling, 37; wells shut down 4; total, 51.

STEPHENS COUNTY
Rigs
Magers, Hart Oil Corp. 1.
Morrison, Mid-Tex Oil Co. 2*.
Hodges, Chestnut & Smith Corp. 2.
McPherson, Hucony Gas Co. 1.
Gardenshire, Acct. 2, Texas Pacific Coal & Oil Co. 5.
Wm. Spicer, Gulf Production Co. 2.
J. M. Ware-C, Gulf Production Co. 31.
Hamil, Humble Oil & Refning Co. 1.
Richardson, Humble Oil & Refining Co. 1.
Coody, Kendridge Oil Co. 1.
Vick, Law et al 1*.
J. W. Hill, Mid-Kansas Oil & Gas Co. 18, 19.
S. H. Hill, Acct. 1, Mid-Kansas Oil & Gas Co. 10.
S. H. Hill, Acct. 2, Mid-Kansas Oil & Gas Co. 1.
Lee, Mid-Kansas Oil & Gas Co. 1*.
Richardson, Mid-Kansas Oil & Gas Co. 2.
Cunningham, Mid-Tex Oil Co. 6.
Vick, Mid-Tex Oil Co. 1*.
Martin, Pennok Oil Co. 8*.
Moon, Phillips Petroleum Co. 2.
Lydon, Prairie Oil & Gas Co. 5.
Knox, Republic Production Co. 7*.
Martin, Texas Consolidated Oil Co. 8.
Bradford, Adamson & Fouts 1*, 2*.
Vick, Atkinson & Sandefer 1.
Williams, Atkinson & Sanderfer 1.
Compton, Bateman & Campbell 1*.
Satterfield Heirs, Chastain & Donley 1.
Goforth, Corzelius Bros. et al 1*.
Houston, Eidson et al 2*.
Long, Hucony Gas Co. 1*.
Stanford, Humble Oil & Refining Co. 1.
Swenson, Jones 32*.
Christenson, Livingston et al 1.
Chesley, Meredith & Thomas 1.
Glascock, Meyer & Kramer 1*.
Head, Mook-Texas Oil Co. 5.
Elder, Pender Production Co. *2.
Hart, Pender Production Co. 2*.
Akin, Phillips Petroleum Co. 4.
Sikes, States Oil Corp. 4.
Swenson, Swendondale Oil Corp. 1-B.
Taylor, Swensondale Oil Corp. 1*.
Parks, Texas Fidelity Oil Co. 2.
Binney, Texas Pacific Coal & Oil Co. 63*, 66.
Webb, Urban et al 1.
Rigs, 5; wells drilling, 26; wells shut down 18; total, 49.

THROCKMORTON COUNTY
Rigs
Batchler, Humble Oil & Refining Co. 1.
Wells Drilling
McKeichen, Adams et al 1.
Cook, Associated Petroleum Co. 1*.
Kelly, Associated Petroleum Co. 3.
R. H. Brown-B, Gulf Production Co. 1.
J. M. Parrott, Gulf Production Co. 1.
Harris, Humble Oil & Refining Co. 1.
Stubblefield, Humble Oil & Refining Co. 1.
Elliott, Red Bank Oil Co. 1, 2.
Parrott, Red Bank Oil Co. 2, 3, 5.
Elliott, Reiter-Foster Oil Corp. 1, 2.
Parrott, Reiter-Foster Oil Corp. 1, 2, 3.
Stubblefield, Reiter-Foster Oil Corp. 1*.
Ellis, Texas Pacific Coal & Oil Co. 1.
Rig, 1; wells drilling, 17; wells shut down, 2; total, 20.

WICHITA COUNTY
Rigs
Waggoner Bros., Culberson Co. 41.
Wells Drilling
H. Willis, Dr. Bailey et al 1*, 2*.
G. Jennings-A, Gulf Production Co. 18.
Potter-Lewis, Gulf Production Co. 10.
Keil, Keil et al 1*.
Miller H. M. Long et al 1*.
O. C. Beach, Magnolia Petroleum Co. 13.
H. Reilly, Magnolia Petroleum Co. 129, 130.
Warren, Magnolia Petroleum Co. 10.
Beach, Texhoma Oil & Refining and Magnolia Petroleum Co. 1-A.
Dutton, Simms Oil Co. 3.
Chilson, Blk. 4, E. J. Stump & Co. et al 1.
Burnett, Ascot Co. 7.
Kemp & Kemper, Block 41 Oil Co. 10*.
Ward & Todd, R. R. Clark et al 5.
Jennings, Dale Oil Corp. 25.
Burnett, Easton et al 1.
Goetze, Evangeline Petroleum et al 1.
Marshall, Hawkins Hester et al 1*.
Allingham-A, Hereford Oil Co. 3.
Hines, Hooser 4.
Hines-A, Humble Oil & Refining Co. 3.
Munger, K. M. A. Oil Co. 26.
Fassett, Kimmel, Dillard & Brown 2.
Honaker, Magnolia Petroleum Co. 71.
McDonald Douglas, Magnolia Petroleum Co. 11.
Pratt-A, Magnolia Pet. Co. 18.
Bertha Ramming, Magnolia Pet. Co. 2.
Guthrie, J. A. McBroom et al 1.
Saunders, O'Neil 7.
Edgerly-A, Pace 5*.
Allen & Kemp-D, Petroleum Prod. Co. 4.
Bywaters, Red River Oil Co. 80.
Powell, Ridgeway 6*.
Mitchell, Ross et al 14.
McClure, Rubsom, Hunter et al 3.
Kemp & Kempner, Ruff & Wilson Drilling Co. 1.
Henson, Ryan Pet. Co. 3.
Nance, Ryan Pet. Co. 76, 77.
Ramming, Skelly Oil Co. 12.
Waggoner, Stump & Co. et al 2.
Burnett-M, Texhoma Oil & Ref. Co. 7.
Fisher, Texhoma Oil & Ref. Co. 1.
Griffin, Texhoma Oil & Ref. Co. 2.
Rig, 1; wells drilling, 38; wells shut down, 8; total, 47.

WILBARGER COUNTY
Rigs
Waggoner-L, Humble Oil & Ref. Co. 2.
Waggoner-M, Humble Oil & Ref. Co. 14.
Waggoner-L, Milham Corp. of Texas 4.
Fluhman, Murchison & Fain et al 1.
Waggoner-L, Phillips Petroleum Co. 3, 5.
Waggoner-N, Phillips Petroleum Co. 1, 2.
Waggoner-T, Phillips Petroleum Co. 6.
Waggoner-Y, Phillips Petroleum Co. 2.
Waggoner-NN, Phillips Petroleum Co. 8, 9.
Waggoner-QQ, Phillips Petroleum Co. 12.
Guyer, Stewart et al 1.
Wells Drilling
Allison, Alford Oil Co. 1*.
Stephens-A, Barkley & Meadows 10*, 13, 14.
Waggoner, Beatly 2.
Dill, Bridwell & Heydrick 12.
Stephens, Bridwell & Heydrick 14.
Waggoner, Bridwell & Heydrick et al 1.
Waggoner, Burton 1*.
Stephens, Empire Gas & Fuel Co. 37, 38, 39, 42, 43, 44, 46, 47.
Bond-B, Humble Oil & Ref. Co. 14, 15.
Castlebury, Humble Oil & Ref. Co. 24.
Chauncey & Gambill, Humble Oil & Ref. 1.
Stephens, Humble Oil & Ref. Co. 14, 48-A.
Waggoner-H, Humble Oil & Ref. Co. 10, 126, 14, 15.
Waggoner-I, Humble Oil & Ref. Co. 5.
Waggoner-K, Humble Oil & Refining Co. 6, 7, 8, 9, 10.
Waggoner-M, Humble Oil & Refining Co. 7, 11, 13, 15.
Waggoner-N, Humble Oil & Refning Co. 3, 5.
Waggoner-O, Humble Oil & Refining Co. 10, 11.
Waggoner-P, Humble Oil & Ref. Co. 1.
Waggoner, Kelly et al 1*.
Fee, Magnolia Petroleum Co. 73.
Piper, Magnolia Petroleum Co. 50.
Sumner, Magnolia Petroleum Co. 54.
Waggoner-B, Milham Corp. of Texas 5.
Waggoner-D, Milham Corp. of Texas 1*.
Waggoner-H, Milham Corp. of Texas 1*, 6, 10, 12.
Waggoner-J, Milham Corp. of Texas 1.
Waggoner-L, Milham Corp. of Texas 8, 10, 11.
Waggoner, Miller Oil Co. 2*, 4.
Waggoner, Murchison & Fain 1.
Waggoner-A, Phillips Petroleum Co. 13.
Waggoner-C, Phillips Petroleum Co. 1.
Waggoner-D, Phillips Petroleum Co. 7*.
Waggoner-H, Phillips Petroleum Co. 6.
Waggoner-I, Phillips Petroleum Co. 1.
Waggoner-L, Phillips Petroleum Co. 4.
Waggoner-M, Phillips Petroleum Co. 2.
Waggoner-Q, Phillips Petroleum Co. 4, 5.
Waggoner-R, Phillips Petroleum Co. 2.
Waggoner-T, Phillips Petroleum Co. 4, 7.
Waggoner-Y, Phillips Petroleum Co. 1.
Waggoner-Z, Phillips Petroleum Co. 1.
Waggoner-BB, Phillips Petroleum Co. 1.
Waggoner-HH, Phillips Petroleum Co. 3.
Waggoner-NN, Phillips Petroleum Co. 6, 7.
Waggoner-PP, Phillips Petroleum Co. 2.
Waggoner-QQ, Phillips Petroleum Co. 8, 11.
Waggoner-UU, Phillips Petroleum Co. 1, 2, 3,4.
Waggoner-WW, Phillips Petroleum Co. 3.
Waggoner-AAA, Phillips Petroleum Co. 1.
Waggoner-A, Prairie Oil & Gas Co. 4, 5.
Waggoner-B, Prairie Oil & Gas Co. 1, 3*.
Kemp, Quincy Oil Co. 2*.
Sec. 19, Rio Bravo Oil Co. 1.
Waggoner-B, Rondeau 1.
Waggoner-C, Rondeau 1.
Condon, Roxana Petroleum Corp. 1.
Waggoner-D, Roxana Petroleum Corp. 1*.
Waggoner, Sloan 2.
Zipperle, Stockton & Mexwell 1.
Waggoner, The Texas Company 305, 306.
Waggoner-A, Waggoner Ref. Co. 4.
Zipperle, Weir 1*.
Milner, Whitehead et al 1.
Waggoner, Whitehead et al 1.
Haney, Wood 1.
Rigs, 14; wells drilling, 92; wells shut down, 13; total, 119.

YOUNG COUNTY
Rigs
Benson, Madden et al 2.
Williams, Minnich et al 1.
Calvin, O. K. Pipe Threading Mch. Co. 2.
Wells Drilling
Stewart, Appleby et al 1*.
Johnson, Barclay & Harris 1*.
Williams, Bridwell & Mayfield 2*.
Steen, Casey et al 1*.
Fee, J. W. Collier 1*.
Moore, Commercial Petroleum Co. 1.
Logan, Evans et al 2.
Ferguson, Jeffers & Jeffers 1*.
Leberman, Jeffers & Jeffers 2.
Little et al, Magnolia Petroleum Co. 6.
Stewart, J. J. Moran 2.
Whitehead, Pandren Oil Corp. 4, 5.
Gragg, Reed & Anderson 3.
Watson, Reed & Wooten 2.
Rogers, Roberts Oil Co. 8, 9.
Calvin, Ryan et al 1*.
Greeg, Simms, Cosden and Consol. Oil Co. 1.
Deitrich, Sun Oil Co. 9, 10.
Beardon, The Texas Company 12, 13.
Benson, Tidal Oil Co. 4, 5.
Brainard, Webster et al 1.
Davis, Clark et al 1.
Morrison Co., Coones & Hotchkiss 1.
Logan et al, Halmack Oil Co. 1.
Griffin, Humphreys Corp. 1.
Donnell, Liner Drilling Co. 1.
Donnell, McQuain et al 1*.
Moore, Transcontinental Oil Co. 1.
Rigs, 3; wells drilling, 25; wells shut down 8; total, 36.

NORTH TEXAS MISCELLANEOUS
BAYLOR COUNTY
Wells Drilling
Mills, Hooser 14.
Portwood, Magnolia Petroleum Co. 8.

CLAY COUNTY
Rig
Matlock, Western Oil Corp. 1.
Wells Drilling
Scaling, Atlantic City Prod. Co. 1*.
Dowlien, W. P. Ferguson et al 1*.
Conner, Grisham et al 1.
Fry, Grisham et al 1.
C. M. Worsham, Gulf Prod. Co. 7.
Scaling, Hamilton, Barkley & Meadows 1.
Inman-A, Howard Petroleum et al 2.
Mullins, Edwin E. Jones 1.
Edrington, Larkin & White 1.
Holloway, Lone Star Gas Co. 21*, 22.
Waggoner, Lone Star Gas Co. 28, 29*.

COMANCHE COUNTY
Rigs
Perry, Bundt et al 1.
Cogburn, Carter et al 1.
Chapman, Suddereth et al 1*.
Wells Drilling
Evans, Brown Drilling Co. 1*.
Capers, Caddell & Davis 1*.
Campbell, Dublin Development Corp. 1.
Mauncey, Kirk & Brewer 1*.
Braswell, Moore 1.
Turner, Smith 1.

COOKE COUNTY
Rig
Kidd, Hudson et al 1.
Wells Drilling
Lester, Big Indian Oil Co. 1.
Hyman, C. C. Lanier et al 3.
Hamilton, Leonard & James 1*.
Houston, H. H. Simpson et al 1.

COTTLE COUNTY
Well Drilling
A. C. Dulaney, T. J. Woodley et al 2*.

DENTON COUNTY
Well Drilling
Fortenberry, Gainesville Syndicate 1.

ERATH COUNTY
Wells Drilling
Koonsman, Davisson et al 1.
Barton, Gillett 1*.
Finch, Nelson Oil Syndicate 3*.
Smith, Welsh et al 1*.

FANNIN COUNTY
Wells Drilling
Moore, Erwin Petroleum Co. 1.

FOARD COUNTY
Wells Drilling
Burress, Central Oil Ints. 1.
Easley, Humble Oil & Refining & Navarro Oil Co. 1*.
A. T. Miller, Gulf Production Co. 1.

HARDEMAN COUNTY
Wells Drilling
Wheat, Benedum & Trees 1*.
Evans, Staley & Wynne 1.

HASKELL COUNTY
Wells Drilling
Bunkley, Bridwell & Mayfield 1*.
Colbert, Weirt & York 1*.

HOOD COUNTY
Wells Drilling
Cook, Parsons et al 1.

KNOX COUNTY
Wells Drilling
Clark, Brazos Bend Oil Co. 1*.
Lawson, Robert Sanders 1*.

MILLS COUNTY
Well Drilling
Weston, Gregory Bros. 1.

PALO PINTO COUNTY
Rig
Fee, Texas Pacific Coal & Oil Co. 26.
Wells Drilling
Dalton, Dalton Oil Co. 6.
Dalton, Dalton Oil Co. 1*.
Scudder, Denver Drilling Co. 1.
Owens, Nelson Oil Syndicate 1*.
Strawn Coal Co. 1, Burton-McKee Oil Corp. A-1.
Edgin, Dalton Oil Co. 1.
Guest, Goodwin & White 1*.
Cardwell, Hart Oil Corp. 1.
Orme, Hart Oil Corp. 1*.
Rasmussen, Pender Prod. Co. 2.

PARKER COUNTY
Wells Drilling
Stickford, Coffin et al 1*.
Davis, Monroe 1*.

WISE COUNTY
Rig
White, Walker Valley Oil Co. 1.
Wells Drilling
Houston, R. W. Little Co. 1.
Cassidy S. W. Com. Co., Magnolia Pet. 2.
Castleberry, Transcontinental Oil Co. 1*.
Rigs, 7; wells drilling, 33; wells shut down, 25; total, 65.

WEST TEXAS
CRANE COUNTY
Rigs
P. J. Lea, Cranfill Bros. 1.
State-Lasseter, Gulf Production Co. 1.
Crier-McElroy, Gulf Production Co. 1, 2, 3.
J. T. McElroy, Gulf Production Co. 2.
University-Church, Magnolia Pet. Co. 2.
Keith-Hughes, F. P. Zock & Marland Oil Co. 2.
Wells Drilling
Connell, J. S. Cosden et al 1*.
J. T. McElroy, Gulf Production Co. 3.
O'Keefe, Magnolia Petroleum Co. 1.
Durham, Marland Oil Co. 1.
Union Land Co., The Texas Company 1-F.
University, Tidal Oil Co. et al 1.
Rigs, 8; wells drilling, 5; wells shut down, 1; total, 14.

CROCKETT COUNTY
Rig
Powell-A, J. K. Hughes 3.
Wells Drilling
University, The California Co. 2.
Powell, Cromwell et al 5.
J. M. Shannon, Crockett Drlg. Synd. 2*.
Couch, Cumberland Oil & Gas Co. 1*.
Noelke, J. S. Cosden 1*.
L. P. Powell-A, Tract B, Gulf Production Co. 4, 5.
Powell, Humble Oil & Refining Co. 8, 9, 10.
Powell-A, J. K. Hughes 2.
Shannon, Magnolia Petroleum Co. 1.
University, Wm. Schaffer et al 1.
Shannon, Ben Simon et al 1.
University, H. F. Wilcox Oil & Gas Co. 1.
R. Massie, Young et al 1.
University, Zoch & Marland Oil Co. 1*.
Rig, 1; wells drilling, 13; wells shut down, 4; total, 18.

MITCHELL COUNTY
Rigs
C. P. Conoway, Owens & Sloan 1.
Mary Foster, Magnolia Petroleum Co. 2.
J. J. Handley, The California Co.
Wells Drilling
F. E. McKenzie, B. H. Cogdell 1*.
C. M. Adams, Magnolia Petroleum Co. 5.
Kloh & Rumsey, Magnolia Pet. Co. 1*.
Hyman, Morrison & Thompson 1.
Ellwood, Mid-Kansas O. & G. Co. 2.
Hardee, Teas & Stivers 1*.
Morrison, Lee 2, The California Co. 16*.
C. M. Adams, Lse. 2, The California Co. 3.
C. M. Adams, Lse. 3, The California Co. 2.
H. C. Miller, Lse. 4, The California Co. 6.

REAGAN COUNTY
Rigs
University, Big Lake Oil Co. 105.
University, Group 1, Texon Oil & Land Co. 49, 50.
Wells Drilling
University, Big Lake Oil Co. 57, 69,70, 72, 73, 74, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 89, 90, 92, 8-B*.
University, Camp et al 1*.
Sawyer Cattle Co., Marland Oil Co. and Mascho 1.
Sawyer Cattle Co., Marland Oil Co. and Pickell 1.
Wolters, Ben Simon et al 1*.
University, Texon Oil & Land Co. of Tex. 1.
Group 1, University, Texon Oil & Land Co. 38, 39, 40, 47, 48, 51, 4-A*, 5-A*, 6-A.
Rigs, 3; wells drilling, 32; wells shut down 5; total, 40.

UPTON COUNTY
Rigs
E. S. Hughes, Dixie Oil Co. 4.
M. L. Baker, Gulf Production Co. 2.
A. S. Burleson, Humble Oil & Ref. Co. 1.
J. T. McElroy, Humble Oil & Refining Co. 1.
Taylor, Independent Oil & Gas Co. 3, 4, 5, 6, 7.
Sanger, Marland Oil Co. 9, 10, 11.
Burleson,. Marland Oil Co. 2-A, 13, 14, 15, 16, 17, 18, 19.
E. S. Hughes, Roxana Petroleum Corp. 1.
Della Bowen, Roxana Petroleum Corp. 2.
Burleson, Sun Oil Co. 3.
R. King, The Texas Company 3.
A. S. Burleson, The Texas Company 1.
Wells Drilling
Burleson, Dixie Oil Co. 6.
E. S. Hughes, Dixie Oil Co. 3.
Sanger, Gulf Production Co. 1.
Ricker & Dodson, Humble Oil & Refining Co. 1.
Emma Wooley, Independent Oil & Gas Co. 2.
Rankin, Kirkwood et al 1.
Sanger, Marland Oil Co. 8.
Burleson, Marland Oil Co. 9, 10, 11, 12.
Estep, Roxana Petroleum Corp. 1.
Della Bowen, Roxana Petroleum Corp. 1.
Bull, Sartain Bros. & Davis 1*.
O. P. Jones, Skelly Oil Co. 1.
Burleson, Sun Oil Co. 12.
Union Land Co., The Texas Company 1.
R. King, The Texas Company 1, 5.
Rigs, 25; wells drilling, 19; wells shut down, 1; total, 45.

WEST TEXAS WILDCATS
BREWSTER COUNTY
Wells Drilling
J. P. Wilson, Green Valley Oil Co. 2*.
Skinner, John Rosenborough & Skinner 1*.

COKE COUNTY
Well Drilling
E. C. Rawlings, Lipan Oil Co. 1*.

CONCHO COUNTY
Wells Drilling
Schultz, Kemper Kimberlin and others 1.
W. S. Lee, Culbertson Bros. 1*.

CULBERTSON COUNTY
Wells Drilling
T. P. Fee, Deep Rock Oil Co.
Mrs. G. H. Quaid, Pure Oil Co. 1.

ECTOR COUNTY
Wells Drilling
Johnson, J. S. Cosden, Henry Zweifel and others 1.
G. W. Connell, J. S. Cosden and others 1-A.
W. E. Connell, J. S. Cosden and others 1-B*.
Kloh & Rumsey, The Exploration Co. 1.
E. P. Cowden, Llano Oil Co. and others 1.
W. P. Edwards, Simms Oil Co. 1.
J. W. Buchanan, F. E. Skinner & Eastland Oil Co. 1.
Henderson, Leigh Taliaferro and others 1*.

FISHER COUNTY
Well Drilling
W. F. Martin, Ideal Oil Co. 1.

GAINES COUNTY
Wells Drilling
Lindsey, Hucony Oil Co. 1.

GARZA COUNTY
Wells Drilling
S. M. Swenson, Deep Rock Oil Co. 1.
Connell, Emerald Oil Co. 1-A*.
J. M. Boren, Emerald Oil Co. 1*.

GLASSCOCK COUNTY
Wells Drilling
Sparkman, Case & Hoover and others 1.
Nellie Calder, Marland Oil Co. 1.

HOWARD COUNTY
Rigs
Otis Chalk, Magnolia Petroleum Co. 2.
Otis Chalk, Marland Oil Co. 2.
Wells Drilling
W. T. Scott, the Deep Rock Oil Co. 1*.
Roberts, Joe Edgar and others 1.
Dora Roberts, Lockhart & Carey 1.
W. T. Scott, Lockhart & Carey 1.
Otis Chalk, Lockhart & Carey 1.
Otis Chalk, Owen & Sloan 2*.

XUM

H. R. Clay, Reeves, Apperman and others 1*.
Roberts, Transcontinental Oil Co. 1.

JEFF DAVIS COUNTY
Rigs
T. M. Wingo, Herbert Oil Co .1.
J. Z. Means, J. K. Hughes Development Co. 1.
Wells Drilling
W. W. McCutcheon, Humble Oil & Ref. Co. 1.

JONES COUNTY
Wells Drilling
Joe Winters, Phillips Petroleum Co. 1.
William Bristow, Shaw & Rathke and others 1*.
Rowell, J. C. Yancey and others 1*.
Herndon, J. C. Yancey and others 1*.

KENT COUNTY
Well Drilling
Barron, The Texas Company 1.

LOVING COUNTY
Well Drilling
L. Allen, Lockhart & Co. 1.

LYNN COUNTY
Well Drilling
C. O. Edwards, Hart Oil Corp. 1*.

MIDLAND COUNTY
Wells Drilling
Jones, M. Agress and others 1*.
Hill, Rook & Zimmerman 1*.

PECOS COUNTY
Rig
Scharff-Blackman, Cromwell & Kimberlin 1.
Wells Drilling
Hersheusen, Dixie Oil Co. 1.
Perry, Transcontinental Oil Co. 1*.
Townsite, Quinby Oil Co. 1*.
Macy, West Texas Exploration Co. 1*.

PRESIDIO COUNTY
Well Drilling
Tootle estate, Hadlock & Miller and others 1.

REEVES COUNTY
Wells Drilling
Abrams, Schooler & Slack and others 1*.
State Land, Gresham & Hunter 1.
Kloh & Rumsey, Humble Oil & Ref. Co. 1.

RUNNELS COUNTY
Well Drilling
Krubber, Sillix & Rainwater and others 1*.

SCHLEICHER COUNTY
Wells Drilling
J. A. & W. T. Whitten, Beavers & Leath and others 1*.
Sol Meyer, Cape & Dalton 1.

SCURRY COUNTY
Rig
Boyce, Fogelson and others 1.
Wells Drilling
J. O. Guinn, Camp Spring Oil & Gas Co. 1*.
H. P. Welborn, The Northwest Co. 1-A.

STONEWALL COUNTY
Wells Drilling
Craft, The Arkansas Fuel Oil Co. 1*
Ward, Swenson Oil Corp. 1*.

STERLING COUNTY
Rig
C. A. Broome, The Exploration Co. 1.
Wells Drilling
Davis, The California Co. 1*.
E. W. Douthitt, Co-Operative Lease & Development Co. 1-A.
L. T. Clark, H. D. Rummell and others 2*.

SUTTON COUNTY
Well Drilling
Clarkson-Allison, Chesapeake Oil Co. 1*.

TAYLOR COUNTY
Wells Drilling
Norwood, Sanger Oil & Refining Co. 1*.
R. H. Anderson, Sanger Oil & Refining Co. 1*.

TERRELL COUNTY
Rig
Scott M., The Sun Oil Co. 1.
Well Drilling
Sowden, E. T. Williams and others 1.

TOM GREEN COUNTY
Wells Drilling
Llano County School Land, M. D. Bryant and others 1.
Pulliam, The World Oil Co. 1.

VAL VERDE COUNTY
Wells Drilling
Moore Estate, A. Blume and others 1.
Russell & Weathersbee, East Del Rio Oil Co. 1*.
R. S. Harrison, Plateau Oil Co. 1*.
Whitehead, Independent Operators 1.

WINKLER COUNTY
Rigs
Sealy, Taliaferro and others 1.
J. W. Amburgey, Ben Simon, Ladd and others 1.
Wells Drilling
Kloh & Rumsey, Brandon-McCamey and others 1.
T. G. Hendricks, R. A. Westbrook & Co. and others 1.

YOAKUM COUNTY
Wells Drilling
Hurdle, Covey-Klinke and others 1*.
Hinkle, Russell & Trunick 1*.

SOUTHWEST TEXAS

Summary of Fields Operations

Field—	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
*Mirando	53	10,555	5	2	21	44	65
Luling	1	0	1	0	0	7	7
Somerset	2	100	0	0	0	0	0
Lockhart	1	0	1	0	0	0	0
Rockdale-Minerva	4	40	0	0	1	4	5
Miscellaneous	16	15	14	1	18	64	82
Total July	77	11,110	21	3	40	119	159
Total June	43	7,221	3	11	41	114	155
Difference	34	3,889	18	8	1	5	4

*Includes Webb, Jim Hogg, Zapata Counties and part of Duval County.

WELLS COMPLETED
MIRANDO

Aviator, Crown Central-Rydal Oil 13 ... 175
Block 13, G. M. Ball 4 ... 100
Block 14, Crown Central-Staley et al. 7-A ... 75
Block 18, Ruthada Oil 4 ... 200
Block 43, Lewis Oil-Nat. Ref. 2 ... 80
Block 13, Gibson Oil 13 ... 300
Block 13, Gibson Oil 14 ... 250
Block 13, Staley-Wynne Co. 11 ... 150
Block 18, Staley-Wynne, 12 ... 100
Block 13, Staley-Wynne 13 ... 90
Block 13, Staley-Wynne 14 ... 125
Block 18, Staley-Wynne, 15 ... 300
Block 18, Staley-Wynne 16 ... 250
Block 18, Staley-Wynne, 17 ... 125
Crown Central 43 ... 125
Puig, Three Rivers Oil 7 ... 500
Puig, Edington-Niles 1 ... 25
Staley-Wynne 8 ... 125
Staley-Wynne 10 ... 300
Gibson Oil, 9 ... 200
Gibson Oil 13 ... 250
Jim Hogg County, Randado, Moody Oil Co. 8 ... 120
Randado, Houston Gulf Gas 10 ... 200
Randado, Black et al. 4 ... 125
Randado, E. L. Smith Oil-Maddox 1 ... 150
Randado, Magnolia Petroleum 39 ... 75
Randado, Moody Oil 7 ... 350
———, Johnson et al. 5 ... 500
Palacios, Simms Oil 7 ... 125
Palacios, Magnolia Petroleum 5 ... 60
Randado, Magnolia Pet. 6 ... 60
Palacios, Magnolia Pet. 2 ... 15
Palacios, Magnolia Pet. 4, 5 ... dry
Caroline-Tex., Webster, Associated Oil 2-A ... 1000
Henne, Winch & F, Kitselman & Stallbans 29 ... 150
Henne, Winch & F., Associated Oil 3 ... 600
———, Moody O.I 3 ... 200
Block 16, Simms Pet. 2 ... 450
Block 16, Simms Pet. 3 ... 450
Block 17, Simms Pet. 4 ... 450
Bruni, Bruni Houston-Gulf Gas 1 ... 150
O. W. Killiam 1 ... gas
Bruni, Sun Co. 3 ... 400
Lopez, O. W. Killiam 1 ... gas
Walsh, Gibson Oil 7 ... 800
———, Graham et al 1 ... 400
Block 12, Moody Oil 1 ... sw
Block 78, Strube & Strube 1 ... sw
Jim Hogg County, Palacios, Amn. Well Prospecting 4 ... 175
Holbein, K. & S. Co. 3 ... 200
Holbein, K. & S. Co. 38 ... dry
Holbein, K. & S. Co. 40 ... dry
Martinez, Magnolia Pet. 10-B ... 65

Wells completed ... 53
Production ... 10,995
Dry and salt water ... 5
Gas ... 2

SOMERSET

Smith, Helvetia Oil 10 ... 50
Weimer, Helvetia Oil 8 ... 50

Wells completed ... 2
Production ... 100

LULING

Fulcher, J. W. Hooser, 1 ... dry

LOCKHART

Gomillion, Sun Co. 7 (dpnd.) ... dry

ROCKDALE-MINERVA

Coulter, Clear Lake Oil 13 ... 8
Branch, Jennings Oil 16 ... 10
Coulter, Bartlett Prod. 10 ... 12
Phillips, Texas Pet. Dev. 5 ... 10

Wells completed ... 4
Production ... 40

MISCELLANEOUS

Bastrop County—
Cedar Creek, Amerada Pet. 1 ... abd
Bee County—
Goree, Benedum & Trees 1 ... abd
Bexar County—
Gambler, L. Digman 1 ... abd
Milhadski, Marland Oil Co. 1 ... abd
Coverin, Storey & Stein 1 ... abd
Yturri, Humble O. & R. 1 ... abd
Duval County—
Benavides, Moody Oil 1 ... sw
Guadalupe County—
McGonigal, The Texas Co. 1 ... abd
Kingsbury, B. F. Pooley 1 ... abd
Medina County—
———, Medina Oil 6 ... 15
Adams, Henderson & Holden 4 ... gas
———, Tarver & Sprague 1 ... abd
Graff, Alamo Drg. & Lsg. Co. 1 ... abd
Milam County—
Seelke, Alexander & Lyles 1 ... abd
Zapata County—
Hinant, Cullinan & Clark 1 ... abd
Yeager, Hill & Perkins 1 ... abd

Wells completed ... 16
Production ... 15
Gas ... 1
Abandoned ... 14

MIRANDO
Rigs
Caroline-Texas, Smith & Maddox 2.
Webster, Associated Oil 4.
Barnsley, Hazlitt & Simmons 2.
Barnsley, Houston-Gulf Gas 1.
Bruni, Ball & Kennedy 4.
Crown Central 12.
Crown & Staley & Wynne 1.
Block 42, Natl. Refg. 2, 3.
Block 44, Sun Co. 5.
———, Ruthada Oil 3.
———, Cole Petroleum 9.
———, Gibson Oil 15.
Cole, Benavides, Cole Petroleum 10, 23.
Jim Hogg County, Randado, Survey 287, Moody Oil 1.
Henne, Winch & F., Holbein, K. & S. Co. 4, 42.
Martinez, Magnolia Petroleum 12, 13.
Zapata County, Bustamente, Turney & Moore 1.
Wells Drilling
Caroline-Texas, Barnsley, Hazlitt & Simmons 1.
Survey 679, U. S. Gas & Oil 1.
Survey 684, Daniels & West 1.
Section 49, Hadley & O'Byrne 1.
Chenault, Witherspoon Oil 1 (dpng.)
Bruni, ———, Crown & Staley & Wynne 3
Block 12, Houston Gulf Gas 2.
Puig, Cole Petroleum 7, 8.
———, Staley & Wynne 11.
Block 44, Sun Co. 4.
———, Gibson Oil, 3, 5, 6, 7, 8, 10, 14.
Survey 835, Simms Oil 4.
Block 44, Associated Oil 2.
Puig, Kirkpatrick & Lucas 1.
Survey 835, O. W. Killiam 2.
Garcia, Crown Central 10.
Garcia, K. Jackson 1.
Garcia, Kirkpatrick & Lucas 1.
Cole, Benavides, Cole Pet. 9, 10, 25, 26.
Lopez, O. W. Killiam 2.
Survey 323, Barclay & Meadors 3.
Roach, G. M. Ball 2.
Jim Hogg County, Weil, Simms Oil 3.
Survey 287, Moody Oil 9.
———, Amn. Well & Prospecting 7, 8.
Holbein, K. & S. Co. 39, 41.
Martinez, Magnolia Pet. 11.
Zapata County, Hinant, O. W. Killiam 2.
Benavides, Benedum & Trees 1.
Cuellar, Magnolia Pet. 1.
Jennings, The Texas Co. 2.
Rigs, 21; wells drilling, 44; total, 65.

LULING
Wells Drilling
Branyon, Magnolia Pet. 3.
Tramwell, Magnolia Pet. 14, 15.
Fields, Golden West Oil 2.
———, Detex Oil 2, sd.
Kelly, United North & South Oil 1.
Tiller, United North & South 1.
Rigs, 0; wells drilling, 7; total, 7.

ROCKDALE-MINERVA
Rigs
Galtherm, Chicago Oil & Land 7.
Wells Drilling
Sterlsky, Union Prod. 7.
Phillips, Paul Pet. 2.
Chambers, G. P. Mann 1.
Baldridge, Brady Bros. 3.
Rigs, 1; wells drilling, 4; total, 5

N. LOUISIANA-ARKANSAS

ARKANSAS

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Union	71	3,639	10	2	29	79	108
Ouachita	12	313	5	0	4	22	26
Columbia	2	5	1	0	2	2	4
Nevada	3	60	1	1	3	1	4
Miscellaneous	5	0	5	0	1	14	15
Total July	93	4,017	22	3	39	118	157
Total June	95	6,038	16	6	61	104	165
Difference	2	2,021	6	3	22	14	8

LOUISIANA

Summary of Field Operations

Parish—	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Bossier	6	27	2	1	2	2	4
Caddo	25	814	5	4	16	34	50
Caldwell	1	0	1	0	2	2	4
Claiborne	2	31	1	0	0	3	3
Grant	3	0	3	0	2	6	8
La Salle	51	4,370	13	1	12	26	38
Monroe district	8	0	1	7	5	13	18
Natchitoches	1	0	1	0	0	2	2
Sabine	1	0	1	0	0	1	1
Webster	2	185	0	0	9	10	19
Winn	5	175	3	0	0	6	6
Miscellaneous	0	0	0	0	3	15	18
Total July	105	5,602	31	13	51	120	171
Total June	96	5,962	30	12	50	129	179
Difference	9	360	1	1	1	9	8

ARKANSAS
Completions
UNION COUNTY

3-17-16 Slaughter, Hickman et al 1 ... dry
11-17-16 Haney, McGaha et al ... dry
4-17-16 Murphy, Allday Drilling Co. 2 ... 15
16-16-15 Murphy, Federal Petroleum Co. 6 ... 60
4-17-16 Murphy, H. L. Hunt, 5 ... 23
28-16-16 Swilley, H. L. Hunt 2 ... 200
9-17-16 Dumas, Magnolia Petroleum oC . 2 ... 60
4-17-16 Harrell, Magnolia Petroleum Co. 5 ... 125
4-17-16 Willett, Natural Gas & Fuel Corp. 3 ... 25
21-17-16 Goodwin, Ohio Oil Co. 4 ... 30
21-17-16 Goodwin, Reynolds and Marr 2 ... 20
15-17-15 Harrell, Rovenger Oil Corp. 3 ... 15
4-17 16 Flournoy, Roxana Petroleum Corp. 6 ... 75
9-16-16 Saxon, C. L. Saxon, B-1 ... 20
16-17-16 Perry, Simms Oil Co. 8 ... 15
17-17-16 Jackson, Summerfield et al 1 ... gas
29-15-15 Murphy, Standard Oil Co. 9 ... 180
4-16-16 McElroy, Weis and Simmons 1 ... dry
6-18-15 Robinson, Clark and Greer 3 ... 30
9-16-15 Flenniken, Humble Oil & Refining Co., B-6.
7-16-15 Tatum, Magna Producing Co. 5 ... 50
10-16-15 Lawton, A. H. Ramage C-7 ... 200
9-16-15 Palmer, Peer Oil Corp. 6 ... gas
19-16-16 Foster, E. M. Jones 1 ... dry
16-16-14 Goodwin, Williams et al 3 ... dry
20-17-15 Rodger, Arkansas Drilling Co. 1 ... dry
3-17-16 Ford, Gulf Refining Co. 1 ... 40
16-17-16 Goodwin, Atlantic Oil Pro. Co. 2 ... 65
15-17-16 Harrell, Keisker et al 2 ... 15
10-17-16 Dumas, Lion Oil and Refg. Co. A-2 ... 7
4-17-16 Harrel, Magnolia Petroleum Co. 6 ... 60
4-17-16 Willett, Nat. Gas & Fuel Corp. 5 ... 45
4-17-16 Willett, Natural Gas and Fuel Corp. 6 ... 16
4-17-16 Willett, Natural Gas and Fuel Corp. 7 ... 35
21-17-16 Goodwin, Ohio Oil Co. 6 ... 22
16-17-16 Goodwin, Rovenger Oil Corp. 6 ... 30
3-17-16 Willett, Roxana Petroleum Corp. 1 ... 30
3-17-16 Slaughter, Southern C. O. P. Co. 4 ... 20
27-16-16 Fee, A. H. Ramage 1 ... 250
28-16-16 Swilley, H. L. Hunt 3 ... 240
5-16-15 Flenniken, Moco Oil Corp. 5 .. dry
8-16 15 Murphy, Broderick and Calvert, B-5 ... dry
15-16-15 Murphy, Simms Oil Co. 3 ... 120
27-19-16 McDonald, Jones and Murphy 1 ... dry
17-17-16 Mitchell, Lion Oil & Refining Co. A-8 ... 50
21-17-16 Primm, Gulf Refining Co. 1 ... 45
16-17-16 Andress, Atlantic Oil Producing Co. B-7 ... 15
3-17-16 Slaughter, Wingfield et al B-1 ... 44
4-17-16 Murphy, Allday Drilling Co. 3 ... 15
16-17-16 Goodwin, Rovenger Oil Corp. B-3 ... 45
4-17-16 Harrell, Pure Oil Co. 2N ... 20
4-17-16 Harrell, Pure Oil Co. N-1 ... 15
4-16-15 Calloway, Amerada Petroleum Corp. 7 ... 150
8-16-16 Fee, G. J. Childs 3 ... 25
4-16-15 Hays, Murdock et al 8 ... 200
16-17-16 Goodwin, Atlantic Oil Producing Co. 5 ... 80
22-17-16 Mooty, Eason et al 1 ... 15
16-17-16 Goodwin, Humble Oil & Refining Co. 4 ... 50
16-17-16 Goodwin, Humble Oil & Refining Co. 8 ... 75
17-17-16 Mitchell, Lion Oil & Refining Co. A-12 ... 40
17-17-16 Mitchell, Lion Oil & Refining Co. C-1 ... 40
4-17-16 Harrell, Magnolia Petroleum Co. 3 ... 90
4-17-16 Harrell, Magnolia Petroleum Co. 4 ... 95
8-17-16 Slaughter, Magnolia Petroleum Co. 1 ... 10
4-17-16 Willett, Natural Gas & Fuel Corp. 4 ... 80
21-17-16 Goodwin, Ohio Oil Co. 5 ... 50
4-17-16 Harrell, Pure Oil Co. 3-M ... 15
21-17-16 Goodwin, Reynolds and Marr 1 ... 15
16-17-16 Goodwin, Rovenger Oil Corp. 7 ... 50
3-17-16 Slaughter, Southern C. O. P. Co. 3 ... 30
17-16-15 Harrell, Natural Gas & Fuel Corp. A-4 ... dry

3639

OUACHITA COUNTY

29-15-15 Goodwin, Ohio Oil Co. 8 ... 100
22-15-19 Morgan, Buffalo Oil Co. 4 ... 75
27-15-16 Hicks, Sunny Jim Oil Co. 1 .. dry
33-15-15 Umsted, Unity Petroleum Co. 6 ... dry
22-15-19 Thompson, Gossett et al A-1 .. dry
31-15-19 Watson, Magnolia Petroleum Co. 3 ... 25
27-15-16 Hardin, Sun Oil Co. 6 ... 15
26-15-16 Arnold, Humble Oil & Refining Co. B-11 ... jnk
22-15-19 Green, Louisiana Oil & Refg. Corp. 2 ... 90
27-15-16 Mullen, Ohio Oil Co. 14 ... 5
6-16-15 McClannahan, Imperial Oil & 9-12-17 Moline, Humble Oil & Refining Co. 3 ... dry

ASHLEY COUNTY

20-15- 7 Bledsoe, Rhodes & Kirker 1 .. dry

CALHOUN COUNTY

24-15-15 Freeman, Genther et al 1 .. dry

COLUMBIA COUNTY

1-16-20 Jones, Gorden et al 4 ... 5
23-18-23 Robinson, Pluto Oil Co. 2 ... dry

CLEVELAND COUNTY

29- 9-10 Moore, Haley et al 1 ... dry

LAFAYETTE COUNTY

8-18-24 Frazier, Bostic Drilling Co. 1 dry
18-19-24 Red River, Arkansas Fuel Oil Co. ... dry

NEVADA COUNTY

27-13-20 Blakely, Zing et al 1 ... dry
10-14-21 Womack, Autrey Oil Co. 3 60
1-14-21 Haynie, Webb et al 1 ... gas

LOUISIANA
BOSSIER PARISH

4-21-11 Elston, Palmer Corp. 1 ... gas
14-23-14 Murray, Arkansas Fuel Oil Co. 1 ... dry
15-19-11 Connell, Autrey Oil Co. 3 7
11-19-11 Fee, Louisiana Oil & Refining Corp. B-11 ... 10
11-19-11 Fee, Louisiana Oil & Refining Corp. B-11 ... 10
11-19-11 Fee, Louisiana Oil & Refining Corp. B-12 ... 10
13-19-11 Moon, Texas Company 1 ... dry

CADDO PARISH

16-20-16 Ferry Lake, Gulf Refining Co.
24-22-15 Hobbs, Dixie Oil Co. 6 ... 60
14-21-15 Robertshaw, Dixie Oil Co. 71 gas
237 ... 37
22-21-15 Raines, Lewis Oil Corp. 15 ... 25
13-20-15 Youree, Standard Oil Co. 1 .. dry
16-20-16 F. J. Bayou, Texas Company B-2 ... 40
12-21-16 Harrell, Texas Company 52 .. dry
2-21-16 Harrell, Texas Company 53 .. dry
33-21-16 Fee, W. D. Chew, 4 ... 35
14-21-15 Huckaby, Tholl Oil Co. 9 ... 60
21-20-16 Ferry Lake Gulf Refining Co. 238 ... 12
15-20-16 Ferry Lake, Gulf Refining Co. 240 ... gas
29-22-15 Caldwell, Henderson et al 1 ... dry
22-20-16 Ferry Lake, Gulf Refining Co. 239 ... 210
15-20-16 Ferry Lake, Gulf Refining Co. 241 ... 130
33-21-16 Caddo L. B., Texas Company 62 ... 10
20-21-14 Cummings, Gilliam Syndicate 1 ... 33
23-21-15 Bashara, Tholl Oil Co. 10 5
15-20-16 Ferry Lake, Gulf Refining Co. 244 ... 105
14-21-15 Murray, McGoldrich et al 9 ... 7
23-22-15 Allen, Standish Oil & Refining Co. 7 ... 15
33-22-15 Allen, Standish Oil & Refining Co. 7 ... 15
33-21-16 Fee, Texas Company 4 60
14-21-15 Tyson, Gulf Refining Co. 12.. gas
35-16-12 Knight, Woodley Petroleum Co. 3 ... gas
13-20-15 Youree-Randolph, Jones and Murphy 1 ... dry

CALDWELL PARISH

9-11-3e La. Central, Humble Oil & Refining Co. A-1 ... dry

CLAIBORNE PARISH

32-23- 5 Hollayfield, Triangle Drilling Co. 1 ... dry
24-21- 8 Lowenberg, Standard Oil Co. 35 ... 31

GRANT PARISH

20- 9-1e L. & A., Tunica Petroleum Co. 1 ... dry
16- 9-1w L. & A., Humble Oil & Refining Co. A-5 ... dry
20- 9-1e Holmes, Dowling and McCurry 1 ... dry

LA SALLE PARISH

25- 9-2e Cotton, Minnesota Oil Corp. 1 dry
6-10-3e La. Central, Robinson and Long 1 ... dry
30-11-4e Cruse, Standard Oil Co. 1 ... dry
36-10-1e Cockerham, Standard Oil Co. 1 ... dry
19-10-2e Urania, Trio Oil Co. 2 ..... abd
18-10-2e Urania, Natural Gas & Fuel Corp. K-4 ... dry
18-10-2e Urania, do do do do do E-8.. dry
7-10-2e Urania, McGaha et al 1 25
11- 9-1e Zenoria, Montague Oil Co. 2 .. 100
36-10-1e Cockerham, Natural Gas & Fuel Corp. 1 ... 100
18-10-2e Urania, Natural Gas & Fuel Corp. B-5 ... 60
18-10-2e Urania, Natural Gas & Fuel Corp. E-4 ... 20
2- 9-1e Urania, George W. Wetherbee 1 ... 75
25-10-1e Tremont, Louisiana Oil & Refining Corp. B-5 ... 50
26-10-1e Tullos Heirs, H. L. Hunt 11 .. 250
25-10-1e Zimmerman, Love et al 5 250
18-10-2e Urania, Natural Gas & Fuel Corp. E-5 ... 25
18-10-2e Urania, Natural Gas & Fuel Corp. E-6 ... 40
18-10-2e Urania, Natural Gas & Fuel Corp. K-1 ... 10
24-10-1e Urania, Natural Gas & Fuel Corp. F-2 ... 125
7-10-2e Urania, Beckman and Free-Man B-1 ... 25

7-10 2e Urania, Hunt, McCurry & Zoder 2 100
24-10-1e Urania, Dixie Oil Co. 7 ..... dry
25-10-1e Norrid, George W. Wetherbee 3 40
19- 9-2e L. & A., Tunica Petroleum Co. 3 ..... dry
7-10-2e Urania, Hunt, McCurry and Zoder, 2 100
7-10-2e Urania, Hunt McCurry & 2 100
7-10-2e Urania, Hunt McCurry & Zoder 4 50
25-10-1e Tremont, Louisiana Oil & Refining Corp. B-33 125
18-10-2e Urania, Natural Gas & Fuel Corp. E-5 25
18-10-2e Urania, Natural Gas & Fuel Corp. E-6 40
18-10-2e Urania, Natural Gas & Fuel Corp. F-2 125
18-10-2e Urania, Natural Gas & Fuel Corp F-3 ..... dry
18-10-2e Urania, Natural Gas & Fuel Corp K-1 10
23-10-1e Tullos, O. W. Clark 4 25
7-10-2e Urania, Beckman and Freeman B-1 25
20-10-2e Urania, Gibbons et al 1 ..... dry
26-10-1e Wright, Hamilton et al 1 ... 25
7-10 2e Urania, Hardtner Oil Co. 5.. 200
26-10-1e Tullos Heirs, H. L. Hunt 14.. 25
25-10-1e Zimmerman, Love et al 5 ... 250
26-10-1e Tullos Heirs, Hunt et al 11 .. 250
1-10-1e Urania, Spencer and Rhodes 1 gas
25-10-1e Russell, O. W. Clark D-2 ... 25
2- 9-1e Urania, Hunt et al 1 1500
25-10-1e Tullos, Daniels et al 2 80
20-10-2e Urania, Gibbons et al 1 .... dry
7-10-2e Urania, A. E. Hudson 4 75
35-10-1e Tremont, Louisiana Oil & Rfg. Corp A-9 50
7-10-2e Urania, Garrett and Modisett Drilling Co. 2 ..... dry
18-10-2e Urania, Natural Gas & Fuel Corp. H-2 50
18-10-2e Urania, Natural Gas & Fuel Corp. K-3 20
26-10-1e Doughty, Nelson et al 1 ..... dry
4370

MONROE DISTRICT
OUACHITA PARISH

13-18-4e Fudicaker, G. E. Jordan 1 ... gas
11- 8-4e Roberts, Hodge and Hunt 1 .. gas
26-19-4e Banks, J. M. Huber 3 ..... gas
2-18-4e Ray and Green, R. J. O'Brien 1 ..... gas
25-20-4e Milsap, Palmer Corp. 2 .... gas

UNION PARISH

30-20-4e Parks, Ruston Drilling Co. 2 gas
32-21-4e Grayling, Southern Carbon Co. B-2 ..... gas

MOOREHOUSE PARISH

11-21-7e Sullivan, Boisseau et al 1 .. dry

NATCHITOCHES PARISH

47- 7- 5 Guellat, S. E. Davidson et al 1 ..... dry

SABINE PARISH

11- 5-9w Peavy-Wilson, J. B. Greer 2.. dry

WEBSTER PARISH

21-21-10 Robbins, Alabama Petroleum Co. B-4 120
21-21-10 Turner, Magnolia Petroleum Co. 65

WINN PARISH

26-11-1w Tremont, Humble Oil & Refining Co. A-1 ..... dry
21-12-3w Radescich, Oliver and Masters 1 ..... dry
26-10-1e Tisdale, Keene and Wools 1 75
12- 9-3w L. & A., Humble Oil & Refining Co. 7 ..... dry
26-10-1e Harper, O. W. Clark 4 100

ARKANSAS
UNION COUNTY
Wells Drilling

1-17-16 Murphy, Allday Drilling Co. 1.
34-19-11 Townes, Arkansas Drilling Co. 1.
3-17-16 Ford, Atlantic Oil Producing Co. 2.
16-17-16 Goodwin, Atlantic Oil Producing Co. 3.
1-16-16 McDonald, F. A. Book 1.
34-17-15 Telford, Crestline Oil Co. 1.
31-15-16 Stout Lumber Co., Dyers Brothers, 4-A.
22-17-16 Moore, Eason et al 2.
15-16-15 Murphy, Eason et al 9.
15-17-16 Mooty, Foster and McWilliams 3.
16-16-15 Cook, Gladys Belle Oil Co. 5-A.
3-18-15 Prothro, Grimes and Jones 1.
4-16-15 Hardy-Murphy, Gulf Refining Co. 29.
5-16-15 Hardy-Murphy, Gulf Refining Co. 38.
9-16-15 Murphy, Gulf Refining Co. 22.
21-17-16 Parker, Gulf Refining Co. 1, 2.
21-17-16 Primm, Gulf Refining Co. 2, 3.
6-16 16 Werner, Gulf Refining Co. 46.
23-17-16 Ennis, Hatfield et al 3.
8-18-15 Fitzgerald, F. C. Henderson 2.
8-18-15 Pratt, F. C. Henderson 2.
3-16-15 Graves, Hickman et al 7.
11-16-15 Giller, Hollayfield and McFarlane 10.
10-16-15 Giller, Hollayfield and McFarlane 13.
21-17-16 Cruse, Humble Oil & Refining Co. 1.
16-17-16 Goodwin, Humble Oil & Renfing Co. 7.
7-16-15 Lawton, Humble Oil & Refining Co. B-2.
27-16-16 Hammond, H. L. Hunt 1.
26-17-16 Goodwin, Imperial Oil & Gas Co. 1.
5-19-14 Loutre Shingle Co., Jones & Murphy 1.
27-19-14 Union Saw Mill, Jones and Murphy 1.
3-16-15 Williams, Kennebrew et al 7.
3-16-15 Graves, Lion Oil and Refining Co. 10.
17-17-16 Mitchell, Lion Oil & Refining Co. A-7, A-4, A-18, A-19, B-1, C-2.
9-16-16 Murphy, Lion Oil and Refining Co. H-1.
7-16-15 Tatum, Magna Production Co. 6.
8-16-16 Childs, Magnolia Petroleum Co. 2.
26-17-16 Halsey, Magnolia Petroleum Co. 1
4-17-16 Harrell, Magnolia Petroleum Co. 7.
17-17-16 Slaughter, Magnolia Petroleum Co. 1, 2.
1-16-17 Werner Co., Magnolia Petroleum Co. 2.
21-16-16 Epps, Marine Oil Co. 1.
10-16-15 Lawton, Mazda Oil Corp. R-6.
15-17-16 Milner, J. L. Meek, 1.
17-16-15 Vestal, Murdock et al 1, 7.
14-16-15 Ballard, Ohio Oil Co. 3.
21-17-16 Goodwin, Ohio Oil Co. 8, 7.
17-16-15 Cook, Peer Oil Corp. 7.
10-16-15 Lawton, A. H. Ramage, C-6.
21-17-16 Goodwin, Rovenger Oil Corp. 2.
14-16-15 Murphy, Sam Richardson, M-2.
16-17-16 Goodwin, Rovenger Oil Corp 8.
9-18-13 Simmons, Simms Oil Co. 1.
9-16-16 Hall, Skelly Oil Co. 2.
8-16-16 Rumph, Southern C. O. P. Co. 1.
3-17-16 Slaughter, Southern C. O. P. Co. 5.
15-16-15 Wells, Southern C. O. P. Co. B-4.
6-16-15 McClanahan, Standard Oil Co. 11.
6-18-15 Reynolds, Standard Oil Co. 4.
9-16-15 Murphy, Stewart et al 5.
8-18-15 Brown, Sun Oil Co. 9.
9-16-15 Flenniken, Sunny Jim Oil Co. 3.
10-16-15 Lawton, Sunny Jim Oil Co. 7.
15-16-15 Murphy, Sure Oil Co. 5.
4-16-16 Saxon, Texas Company 4.
6-19-13 Cordell, Walber et al 2.
10-17-17 Gallighe r, Wingfield et al 1.
3-17-16 B-3. Slaughter, Wingfield et al, B-4.

Rigs

1-16-17 La Grone, Arkansas Fuel Oil Co. 8.
16-17-16 Goodwin, Atlantic Oil Producing Co. 6.
13-18-15 Hollis, Belmont et al 1.
23-17-16 Flenniken, H. M. Harrell 7.
18-16-15 Smith, F. C. Henderson 3.
20-17-16 Goodwin, Humble Oil & Refining Co. 1.
4-17-16 Murphy, H. L. Hunt 7.
21-17-16 Primm, Imperial Oil & Gas Co. 3.
10-16-15 Lawton, E. M. Jones 2-A.
17-16-15 Murphy, E. M. Jones 6.
9-16-15 Hardy-Murphy, Lion Oil and Refining Co. 2.
17-17-16 Mitchell, Lion Oil & Refining Co. A-6, B-2.
20-17-16 Halsey, Magnolia Petroleum Co.
12-16-17 Scott, Magnolia Petroleum Co. 2.
14-19-12 Lewis, Matthews et al 1.
23-18-17 Taylor, Natural Gas and Fuel Corp., and Atlantic 1.
21-17-16 Stocks, Ohio Oil Co. 1, 2.
15-17-16 Dumas, J. D. Reynolds 5.
9-17-16 Dumas, Rovenger Oil Corp. 3, 7.
16-17-16 Goodwin, Rovenger Oil Corp. B-4.
16-17-16 Goodwin, Rovenger Oil Corp. B-4
16-17-16 Graham, Rovenger Oil Corp. 4.
15-17-16 Harrell, Rovenger Oil Corp. 4.
22-17-16 Snyder, Rovenger Oil Corp. 1.
3-17-16 Willett, Roxana Petroleum Corp. 2.
15-16-15 Murphy, Simms Oil Co. 4.
4-18-16 Wait, A. H. Stolz, 1.

Shut Down

8-18-12 Garner, Bonderant et al 1.
9-18-17 Primm, Calgo Oil Co. 1.
10-16-15 Ballard, Federal Petroleum Co. 7.
34-16-16 Mathews, W. T. Harper 1.
36-17-16 Springer, Howell and Knowles 2.
10-16-15 Lawton, Mazda Oil Co. R-4, R-6.

OUACHITA COUNTY
Wells Drilling

33-15-15 Umstead, Gulf Refining Co. A-19, A-20.
28-15-15 Hildebrant, Humble Oil & Refining Co. 10.
6-16-15 McClanahan, Imperial Oil & Gas Co. 10.
27-15-16 Neeley, W. R. Keever 2.
32-15-15 Rhoten, Magna Production Co. B-4.
34-15-15 Johnson, Phillips Petroleum Co. 5.
31-15-15 Laney, Phillips Petroleum Co. 3.
9-14-17 Tate, Phillips Petroleum Co. 1.
15-14-18 Howell, J. D. Reynolds 1.
28-15-15 Berg, Roxana Petroleum Corp. 6.
29-15-15 Murphy, Simms Oil Co. 6.
36-15-17 Shirey, Smith Drilling Co. 2.
20-15-15 Murphy, Standard Oil Co. 10.
32-15-15 Bennett, Standard Oil Co. B-8.
33-15-15 Berry, Texas Company 17.
29-15-15 Richardson, Woodley Petroleum Co. 5.
22-15-19 Culp, Louisiana Oil & Refining Co. 1.
30-15-19 Co. 2. Jones, Louisiana Oil & Refining
31-15-19 4. Watson, Magnolia Petroleum Co.
22-15-19 Davis, Arco Oil Co. 1.
22-15-19 Davis, J. D. Reynolds, A-1.

Rigs

21-14-17 Reynolds, A. T. Grayson 1.
33-15-15 Umstead, Gulf Refining Co. A-21.
5-16-15 Hinton, Houston Oil Co. 2.
33-15-17 Clawson, A. Meek 2.

Shut Down

32-15-15 Bennett, Roxana Petroleum Corp. A-4.
33-15-15 Umsted, Standard Oil Co. 12.
32-15-15 Umsted, Standard Oil Co. B-5.
15-15-19 Holton, Reynolds et al 1.

ASHLEY COUNTY
Wells Drilling

7-17-15 Fee, Pine Prairie Oil Co. 1.

BRADLEY COUNTY
Wells Drilling

33-15-11 Arkansas Tmb. Co., Arkansas Fuel Oil Co. 1.
7-15-11 Southern, McMurry et al 1.

Shut Down

21-16-12 Brown, Easley et al 1.

CALHOUN COUNTY
Wells Drilling

1-16-14 Calion, Southern Crude Oil Purchasing Co. 1.

Rigs

16-11-14 Guidor, Delmar Oil Co. 1.

Shut Down

26-16-13 Freeman, Harris and Buckley 1.

CLARK COUNTY
Shut Down

12- 9-20 Arnold, E. O. Lovett 1.
35-10-20 Brown, Wheelen Oil Co. 1.

CLEVELAND COUNTY
Wells Drilling

31-10-10 Hall, Kingland Oil Co. 1.

COLUMBIA COUNTY
Wells Drilling

13-15-20 Brown, R. W. Aarnes 2.
6-18-20 Davis, Scott Phillips 2.

Rigs

15-17-22 Gantt, F. R. Maier et al 1.
20-18-22 Hamp Dickens, Pluto Oil Co. 1.

Shut Down

18-19-19 Wingfield, Haynesville Trust Co. 1.
29-19-20 Doss, Kentucky-Arkansas Petroleum Co. 1.
4-26-21 Bodcau, Wingfield and Mitchell 1.

DALLAS COUNTY
Shut Down

29-10-16 Owens, McNeil et al 1.

DREW COUNTY
Wells Drilling

35-13- 5 Olga, McClintock and Goodka 1.

HEMPSTEAD COUNTY
Wells Drilling

17-11-25 Nichols, Frank S. Myers 2.

Shut Down

23-10-25 Garland, Burton et al 1.
9-11-23 Sutton, Zing et al 1.

JEFFERSON COUNTY
Wells Drilling

9- 3-19 Hinsley, Decem Oil Co. 1.

LAFAYETTE COUNTY
Wells Drilling

18-19-24 Allen, Arkansas Fuel Oil Co. 4.
10-19-24 Red River, Gulf Refining Co. E-1.
14-17-24 Colvin, Texas Co. 1.

LITTLE RIVER COUNTY
Wells Drilling

4-13-31 Waldrop, Greason et al 1.
10-11-31 Hawkins, Mellick Oil Co. 1.

Shut Down

2-13-31 Allen, Grote et al 1.

MILLER COUNTY
Wells Drilling

27-17-26 Dorsey, Gulf Refining Co. 1.

NEVADA COUNTY
Wells Drilling

10-14-21 Womack, Autrey Oil Co. 6.
2-14-21 Groves, W. F. Furen et al 1.
10-14-21 Bodcau, Humble Oil & Refining Co. 4.

Rigs

2-14-21 Waters, Humble Oil & Refining Co. 1.

LOUISIANA
BIENVILLE PARISH
Wells Drilling

23-16-10 Thomas, Woodley and Collins 1.

BOSSIER PARISH
Wells Drilling

9-22-11 Bollinger, Doern et al 1.
14-23-12 L. & A., Woodley and Collins 1.

Shut Down

15-19-11 Connell, Autrey Oil Co. 4.
9-20-13 Bulkley, Benton Syndicate 1.
14-19-11 Larkin, R. L. Crook 4.
23-19-11 Strange, Olmstead et al 10.

Rigs

17-18-11 Burckhalter, Henderson et a l 1.
4-21-11 Antria, Woodley and Collins 1.

CADDO PARISH
Wells Drilling

24-22-15 Hess, Bayou State Oil Co. 28.
34-21-16 State, W. D. Chew 4.
9-20-16 Caddo L. B., W. D. Chew A-1.
15-21-15 Spell, Double I. I. Oil Co. 7.
27-22-15 Jolly, Dixie Oil Co. 1.
7-20-15 Muslow, Dixie Oil Co. 15.
15-21-16 Burglass, Galloway et al 1.
17-21-14 Sellington, Gilliam Syndicate 1.
2-19-14 Byrd, Gulf Refining Co. 1.
16-20-16 Ferry Lake, Gulf Refining Co. 244.
22-20-16 Ferry Lake, Gulf Refining Co. 245.
15-20-16 Ferry Lake, Gulf Refining Co. 247.
29-21-16 Ferry Lake, Gulf Refining Co. 250.
9-20-16 Levee Board, Gulf Refining Co. U-6.
35-21-15 Muslow, Gulf Refining Co. E-1.
24-21-15 Dillon, Magnolia Petroleum Co. 16, 17.
29-21-15 Spell, Magnolia Petroleum Co. 1.
24-21-15 Bradford, Magnolia Petroleum Co. 1.
1-20-16 Palo Oil Co., Morris Drilling Co. 1.
9-17-16 Bryson, Owl Oil Co. 1.
7-17-16 Bryson, Owl Oil Co. 2.
32-21-15 Muslow, Ramsey et al 1.
29-21-15 Hobbs, Page and Caldwell 1.
26-20-15 Youree, Superior Oil Co. 4.
14-21-16 Caddo L. B., Texas Company 63.
23-21-15 C. M. L. Co., Texas Company 42.
15-20-16 Bayou, Texas Company B-1.
4-21-16 Harrell, Texas Company 54.
14-21-15 Herold, Texas Company 8.
21-21-15 Hicks and Payne, Texas Company 4.
31-21-15 Hicks and Payne, Texas Company 4.
31-21-15 Muslow Fee, Thomason et al 1.
15-20-15 Thomas, Victor Wenzell 1.
14-20-15 Wemple, Victor Wenzell 1.

Rigs

2-20-16 Dambley, H. P. Rurford 1.
7-20-15 Muslow, Dixie Oil Co. 17.
27-21-15 Slattery, Dixie Oil Co. 10.
15-20-16 Ferry Lake, Gulf Refining Co. 248, 251, 252.
16-20-16 Ferry Lake, Gulf Refining Co. 249.
22-20-16 Ferry Lake, Gulf Refining Co. 253.
16-20-16 Levee Board, Gulf Refining Co. U-7.
18-17-16 Waterman, Magnolia Petroleum Co. 1.
12-21-15 Smith, Ohio Oil Co. 20.
23-22-15 Allen, Standish Oil & Refining Co. 8.
22-15-12 Caddo L. B., Texas Company B-1.
26-21-15 C. M. L. Co., Texas Company 48.
3-20-16 Perry, Texas Company 3.
15-20-15 Hunsicker, Victor Wenzell 1.

Shut Down

8-19-16 L. L. S. & P. Co., Hayner Brothers 1.
15-17-14 Cunningham, Manie Drlg. Co. 1.
3-15-15 Williams, Ridge Oil Corp. 1.
23-21-15 C. M. L. Co., Texas Company, 47.

CALDWELL PARISH
Wells Drilling

16-11-4e Beasley, T. R. Robbins, 1.
35-14-5e Caldwell, Southern Crude Oil Pro-
35-14-5e Caldwell, Southern Crude Oil Purchasing Co. 1.

Rigs

38-14-4e Merideth, Keisker and Simon 1.
1-13-5e Caldwell, Southern Crude Oil Purchasing Co. 2.

Shut Down

10-11-2e Louisiana Central, Cherokee Petroleum Co. 1.
6-11-4e Cruse, Grant and Pipes 1.
16-11-2e Love, Wright et al 1.

CLAIBORNE PARISH
Wells Drilling

14-23- 8 Taylor, Gilliland Oil Co., and Ramsey, D-1.
35-19- 8 Crichton, Gulf Refining Co. 1.
7-19- 5 Keen, Triangle Drilling Co. 1.
No rigs.

Shut Down

28-19- 5 Beard, Brown et al 1.
7-10- 5 Cox, Triangle Drilling Co. 1.

DE SOTO PARISH
Wells Drilling

9-12-11 Jenkins, Dixie Oil Co. 1.
15-12-14 L. L. & D. Co., J. P. Evans 1.
20-12-14 Sutherlin, J. P. Evans 1.
27-12-11 Bond, Magnolia Petroleum Co. 1.
23-13-13 Woolums, Peer Oil Corp. 1.
No rigs.

Shut Down

29-15-14 Williamson, Carl K. Dresser 1.
36-12-11 Chaffraix, J. C. Walton 1.

GRANT PARISH
Wells Drilling

16- 8-1e Holmes, Bradley and Cozart 1.
17- 9-1e Swope, Gulf Refining Co. 1.
27- 9-1w L. & A., Humble Oil & Refining Co. A-9.
30- 9-2w Edenborn, Humble Oil & Refining Co. A-1.
32- 9-1e L. & A., Tunica Petroleum Co. 2.
16- 8-1e L. & A., Tunica Petroleum Co. 5.

Rigs

13- 9-2w L. & A., Humble Oil & Refining Co. A-10.
17-9-1e Holmes, Holmes et al 1.

Shut Down

9- 8-5w Harrison, Fuller et al 1.

JACKSON PARISH
Wells Drilling

5-15-1e Martin, Charles A. Ferguson 1.
34-15-3w Horton, Clarence Houseman 1.
20-16-3w Theus, Louisiana Petroleum Co. 1.

Rigs

22-17-4w Adams, Grigsby & Co. 1.

LINCOLN PARISH
Wells Drilling

3-20-4w Cooper, Arkansas Fuel Oil Co. 1.
12-20-3w Davis, Buckley and Palmer 1.

MADISON PARISH
Wells Drilling

51-16-14e Yerger, Bannon et al 1.

MONROE DISTRICT
MOOREHOUSE PARISH
Wells Drilling

22-20-4e Archer, Feazel, trustee 1.
24-21-4e Crossett, Natural Gas Products Co. 19.
34-21-3e Cooperage, Standard Oil Co. 1.
24-20-4e Burton, United Carbon Co. 1.
No rigs—no shut downs.

OUACHITA PARISH
Wells Drilling

12- 9- 4 Kerr, Central Co. Inc. 1.
17-19-4e Fee, Hatcher and Evans 4.
20-19-4e McErwin, Maury Drilling Co. 3.
25-19-2e D'Arbone, Ouachita Natural Gas & Oil Co. 2.
1-19-4e Central, Palmer Corp. 1.
35-19-4e Fee, Southern Carbon Co. 49.

Rigs

6-19-5e Fee, Ladell et al 34.
35- 9-4e Ray and Green, R. J. O'Brien 2.
33-19-4e Cole, Palmer Corp. 3.

Shut Down

23-15-3e Cordell, Culver et al 1.
24-18-3e Goodwin, Dickson and Frue 1.

UNION PARISH
Wells Drilling

14-20-1e Reeves, Arkansas Fuel Oil Co. 1.
28-21-4e Grayling, Southern Carbon Co. 4.
21-21-4e Grayling, Southern Carbon Co. 5.

Rigs

8-23-1e Frost-Johnson, Clark Creek Oil Co. 2.
22-22-2w Pickens, R. W. Rhodes 1.

Shut Down

18-23-1e Frost Johnson, Clark Creek Oil Co. 1.

NATCHITOCHES PARISH
Wells Drilling

781 7-5w Cockfield, Brothers et al 1.
31- 8-5w Williams, R. E. Davison et al 1.
No rigs.

Shut Down

3-13- 7 Ayers, Forrest trustees, 1.
4-11- 6 Edenborn, J. F. Palmer 1.

RAPIDES PARISH
Wells Drilling

7- 5-3w Wettermark, Minnesota Oil Corp. 1.

Rigs

12- 4-1e Voda, F. Pacholik 1.

Shut Down

29- 5-2e Barrow, Hincey and Macke 1.

RED RIVER PARISH
Wells Drilling

13-11-10 Powell, Alden Oil Co. 1.
No rigs—no shut downs.

RICHLAND PARISH
Wells Drilling

23-18-8e Ches-Wyman, Gulf Refining Co. 1.

SABINE PARISH
Wells Drilling

9- 7-12 Bowman, L. M. Emlet 5.

Shut Down

8- 7-12 Bowman, L. M. Emlet 6.
14- 7-14 Bowman, L. M. Emlet 7.
19- 4-11 Drake, Toro Petroleum Co. 3.

TENSAS PARISH
Rigs

29-14-12 Somerset, Spencer and Rhodes 1.

WEBSTER PARISH
Wells Drilling

22-21-10 Cox, Humble Oil & Refining Co. 2.
32-23- 9 Sexton, Magnolia Petroleum Co. 1.
21-21-10 Tiner, Magnolia Petroleum Co. 2.
27-21-10 Josey and Masey, R. W. Norton 1.
23-21-10 Cox, Ohio Oil Co. 1.
23-21-10 Holloway, Ohio Oil Co. 3.
16-21-10 Sidney Heirs, Ohio Oil Co. 7.
30-20- 8 Crichton, Palmer Corp. 1.
29-33-11 Oakley, Smitherman and McDonald 1.
1-22-10 Munn, Southern Crude Oil Purchasing Co. and Ramsey 1.

Rigs

30-23- 9 Pickett, Belchic and Laskey 1.
28-21-10 Nelson, Louisiana Oil and Refining Corp. 3.
21-21-10 Tiner, Magnolia Petroleum Co. 3.
21-21-10 Turner, Magnolia Petroleum Co. A-3.
22-21-10 Banks, Ohio Oil Co. 2.
15-21-10 Bodcau, Ohio Oil Co. 32.
26-21-10 Gray, Ohio Oil Co. 3.
23-21-10 Holloway, Ohio Oil Co. 2.
26-21-10 Gray, Woodley Petroleum Co. 4.

Shut Down

13-21-10 Bodcau, Humble Oil & Refining Co. B-5.
15-20-10 Hortman, McDowell et al 1.

WINN PARISH
Wells Drilling

26-10-1e Harper, O. W. Clark 5, 6.
21-10-2w L. & A., Humble Oil & Refining Co. 12.
26-10-1e Tisdale, Keene and Woolf 2.
4-12-1w Edenborn, Ohio Oil Co. 1.
27-10-1e Albritton, O'Neill and Schuman 1.
No rigs.

Shut Down

6-10-2w Sullivan, Cedar Creek Petroleum Co. 1.
13-11-1e Urania, Cherokee Petroleum Co. 1.
6-10-2w Eagles, J. H. Hall 1.

LA SALLE PARISH
Wells Drilling

36-10-15 Tannehill, Arizola Petroleum Co. 9.
7-10-2e Urania, Beckman and Freeman B-3.
26-10-1e Herbert, Mitchell et al 1, 2.
26-10-1e Wright, Hamilton et al 2.
22-11-3e Louisiana Central, Humble Oil & Refining Co. 2-A.
26-10-1e Tullos Heirs, H. L. Hunt 15.
23- 8-4e White Sulphur, Jena Oil Corp. 1.
23- 9-1e Taylor, Henry Jones 2.
7-10-2e Collins, Keene and Woolf A-1.
25-10-1e Tremont, Louisiana Oil and Refining Corp. B-14.
35-10-1e Tremont, Louisiana Oil and Refining Corp. C-1.
26-10-1e Ratcliff, Little River Oil Co. 1.

XUM

25-10-1e Zimmerman, Love et al 6.
26-10-1e Russell, Mistrot et al 1.
36-10-1e Doughty, W. T. Murray 2.
18-10-2e Urania, Natural Gas & Fuel Corp. H-3, K-7.
24-10-1e Urania, Natural Gas and Fuel Corp.
7-10-2e Kinney, T. G. Randle 1.
16-10-1e Urania, Ohio Oil Co. 8.
F-4.
25-10-1e Russell, Sherman et al 4.
18-10-2e Winberry, Sterling Inc. 2.
16- 9-1e Swope, Texas Company 1.
22- 9-2e L. & A. Tunica Petroleum Co. 6.
2- 9-1e Urania, Geo. W. Wetherbee 2-A.

Rigs

7-10-2e Urania, Beckman and Freeman B-4, B-5.
25-10-1e Odom, Carlton and Tharne 1.
3- 9-1e Urania, Carter and Hurley C-1.
27-10-1e Sanders, Dickerson et al 1.
19-10-2e Urania, Hope Oil Co. 3.
2- 9-1e Griswold, H. L. Hunt 2.
24-10-1e Pendarvis, Ab Jones 1.
3- 9-1e Urania, Keene and Woolf 1.
11- 9-1e Zenoria, Montague Oil Co. 3.
15- 9-1e Zenoria, Montague Oil Co. 3.
15- 9-3e L. & A., Tunica Petroleum Co. 4.
13-10-2e Louisiana Central, Vacuum Oil Co. 1.

Shut Down

23-10-1e State, Beckman and Freeman 1.
33-10-1e Louisiana Central, Cherokee Petroleum Co. 3.
25-10-1e Tremont, Louisiana Oil and Refining Corp. B-10, B-12.

GULF COAST FIELDS

Summary of Field Operations

District—	Comp.	Prod.	Dry	Rigs	Drg.	Ttl.
Boling	13	135	11	0	4	4
Batson	6	89	0	2	2	4
Big Creek	2	4,380	0	0	2	2
Blue Ridge	2	1,000	1	1	2	3
Barber Hill	1	0	1	0	2	2
Edgerly (La.)	0	0	0	0	3	3
Goose Creek	8	1,366	2	3	9	12
Humble	4	125	1	0	5	5
Hull	17	9,090	4	3	11	14
High Island	2	15	1	0	4	4
Jennings (La.)	6	125	1	3	3	6
Lockport (La.)	2	1,025	0	3	6	9
Nash	1	0	1	0	4	4
Markham	0	0	0	0	2	2
Orange	13	9,865	2	3	10	13
Orchard	0	0	0	0	1	1
Pierce Junction	2	3,500	0	1	4	5
Piedras Pintas	1	0	1	0	3	3
Spindletop	11	40,100	0	12	26	38
Saratoga	2	600	1	0	1	1
Sour Lake	5	2,400	3	5	7	12
South Liberty	1	3,000	0	0	3	3
Vinton (La.)	6	250	4	0	12	12
Misc.	8	40	7	19	63	82
West Columbia	1	20	0	0	0	0
Total for July	114	77,125	41	55	189	244
Total for June	106	23,014	41	49	204	253
Difference	8	54,111	0	6	15	9

WELLS COMPLETED
BOLING

Woodbin, Humphrey Corp. 1 abd
Taylor, Sun Oil Co. 11 sw
Taylor, The Texas Company 5 sw
Hawes, Humble Oil & Refg. Co. 9 100
Floyd, Oxford-Southern Explo. 5 sw
Hawes, Humble Oil & Refg. 6, 7 sw
Floyd, Sun Co. 2 (wo) 35
Uechert, Vineyard Oil 1 sw
Hooper, Vacuum Oil 1 abd
Felder, The Texas Company 1 abd
Floyd, Oxford-Southern Expn. 3 (wo) dry
Floyd, The Texas Company 1 (wo) dry
Davidick, Anderson et al 1 dry

Wells completed 13
Production 135
Abd. and salt water 11

BATSON

Milhome, S. R. Richardson 88 4
State land, East Batson Oil 13 10
Wing, Gulf Prod. 168 25
Hodges, Kirby-Capitol Oil 5 25
Paraffin, Paraffin Oil 66 10
Choate, Gulf Prod. 61 15

Wells completed 6
Production 89

BIG CREEK

Davis, Gulf Prod. 28 80
Davis, Gulf Prod. 29 4300

Wells completed 2
Production 4380

BLUE RIDGE

West-Schenck, Abercrombie et al 1 1000
Invincible, Gulf Prod. 3 abd

Wells completed 2
Production 1000
Abandoned 1

BARBER HILL

Barber, Bennett Prod. 2 abd

Well completed and abd. 1

GOOSE CREEK

Bryan, Powell Oil 6 50
State land, Gulf Prod. 33 900
Smith, Gulf Prod. 18 sw
Wright, Sun Co. 6 16
Bryan, L. G. Marshall 3 50
Smith, Humble Oil & Refg. 69 100
Peninsula, Humble Oil & Refg. 22 abd
State land, Gulf Prod. 8 (wo) 250

Wells completed 8
Production 1366
Abandoned and salt water 2

HUMBLE

Perkins, Brain Oil 5 abd
Bailey, H. & W. Oil 3 25
Bering, Posey Oil 1 50
Bender, McDonough & Castellene 2 50

Wells completed 4
Production 125
Abandoned 1

HULL

Dolbear, Houston Oil-Rep. Prod. 128 3000
Hannah, Texas-Vacuum Oil 2 50
Phoenix, Gulf Prod. 68 1500
Merchant, Humble Oil & Refg. 6 sw
Phoenix, Gulf Prod. 69 125
Thomas, Gulf Prod. 9 300
Sterling, Humble Oil & Refg. 3 3000
Merchant, The Texas Company 10 abd
Dolbear, Republic-Houston Oil 131 150
Dolbear, Republic-Houston Oil 134 400
Guedry, Humble Oil & Refg. 23 15
Barngrover, Empire Gas & Fuel 19 200
Merchant, The Texas Company 4 300
Baldwin, Gulf Prod. 18 60
Phoenix, Gulf Prod. 17 (wo) 400
Phoenix, Gulf Prod. 19 (wo) dry
Taylor, Mecom Oil 9 salt

Wells completed 17
Production 9090
Abandoned and salt water 4

HIGH ISLAND

Cade, Sun Co. 10 15
Lockhart, Sun Co. 9 abd

Wells completed 2
Production 15
Abandoned 1

JENNINGS

Fontent, General Pet. 1 abd
Latrielle, The Texas Company 4 40
J. C. F. I. Getty 2 20
J. C., Gulf Refg Co. 25
Heywood, Jennings Pet. 5 20
Clement, F. I. Getty 20

Wells completed 6
Production 125
Abandoned 1

LOCKPORT

Miller, Vacuum-Gulf Co. 125
Friedberg & Wolf, Vacuum Oil 1 900

Wells completed 2
Production 1025

NASH DOME

Wisdom, Rycade Pet. 7 abd

Completed and abandoned 1

ORANGE

Chesson, Humble Oil & Refg. 25 1500
Carbello, Rex Pet. 4 dry

SARATOGA

Queen, Paggi Bros. 43 dry
Fountain, Rio Bravo Oil 5 600

Wells completed 2
Production 600
Dry 1

SOUR LAKE

Jackson, Falloure et al 3 abd
Lynn, Peveto Oil 1 abd
Gilbert, Yount-Lee Oil 4 2300
Hardin, Lake View Oil 48 abd
Lynn, Yount-Lee Oil 1 100

Wells completed 5
Production 2400
Abandoned 3

SOUTH LIBERTY

Welder, Humble Oil & Refg. Co. 3000

Well completed 1
Production 3000

VINTON

Gray, Vinton Pet. 28 125
Harmony, Vinton Pet. 15 125
Rescue, Vinton Pet. 20 sw
Gray, Gulf Refg. 4 sw
Jackson, Supreme Oil 1 sw
Lyons, Pelican Oil 2 abd

Wells completed 6
Production 250
Abandoned and salt water 4

WEST COLUMBIA

Abrams, The Texas Company 4 (wo) 20

Wells completed 1
Production 20

MISCELLANEOUS

Hardin County—
Weiss, Humble Oil & Refg. 1 abd
Chambers County—
Jackson, Paggi Bros. 1 abd
Jefferson County—
Fee, Deutser Oil 1 abd
Sun-Dyson, Houston Oil 2 abd
Matagorda County—
Turner, Gulf Prod. 1 abd
Sanborn, Gulf Prod. 1 abd
Hawkins, Shepherd Mott Oil 2 abd
SOUTH LOUISIANA
Calcasieu Parish—
Industrial Lbr., Standard Oil of La. 3 40

Wells completed 8
Production 40
Abandoned 7

RIGS AND WELLS DRILLING
BOLING
Wells Drilling

Farmer, The Sun Co. 2.
Farmer, The Texas Company 1.
Hawes, Humble Oil & Refg. 11.
Taylor, Sun Co. 9.
Wells drilling, 4.

BATSON
Rigs

LaJarza, The Texas Company 2.
Choate, Gulf Prod. 62.
Wells Drilling
Santa Fe, Houston Prod. 1.
Cruse, Gulf Prod. 1.
Rigs, 2; wells drilling, 2; total, 4.

BIG CREEK
Wells Drilling

Wheat, Gulf Prod. 11.
Davis, Gulf Prod. 2.
Wells drilling, 2.

BLUE RIDGE
Rig

Robinson, Blue Ridge O. & G. 1.
Wells Drilling
Blakely, Gulf Prod. 7.
West-Schenck, Gulf Prod. 6.
Rigs, 1; wells drilling, 2; total, 3.

BARBER HILL
Wells Drilling

Barber, Barclay & Meadors 2.
Barber, Bennett Prod. 2 (wo.)
Wells drilling, 2.

DAYTON
Wells Drilling

Harrison, Harrison Oil 2.
Pruitt, Poor Boy Oil 2 (sd.)
Wells drilling, 2.

EDGERLY
Wells Drilling

Bright-Penn, Gulf Refg. 25.
Hunter, Rex Pet. 3.
Hill, Drysdale-Savoy Oil 2.
Wells drilling, 3.

GOOSE CREEK
Rigs

Peninsula, Humble Oil & Refg. 19, 17.
Smith, Humble O. & R. 70.
Wells Drilling
Smith, Humble Oil & Refg. 68.
Peninsula, Humble O. & R. 12.
Chapman-Bryan, Gulf Prod. 12.
Wright, Gulf Prod. 7.
Hirsch, Gulf Prod. 6.
Beaumont, Gulf Prod. 24.
Smith, Gulf Prod. 25.
Galliard, Gulf Coast Oil 9 (wo.)
Scorrgea, M. & B. Oil 4.
Rigs, 3; wells drilling, 9; total, 12.

HUMBLE
Wells Drilling

River, Sun Co. 33.
Bailey, H. & W. Oil 3.
Bender, Donough et al 3.
Morris, Stevens et al 2.
Burt, Barclay & Meadors 5.
Wells drilling, 5.

HULL
Rigs

Barngrover, Empire Gas & Fuel 20, 21.
Phoenix, Gulf Prod. 72.
Wells Drilling
Dolbear, Republic-Houston Oil 126, 132.
Lynn, Humble Oil & Refg. 1.
Beyers, Humble Oil & Refg. 1.
Hannah, The Texas Company 1.
Hannah fee, The Texas Company 1.
Hannah, Gulf Prod. 18.
Scarborough, Gulf Prod. 18.
Phoenix, Gulf Prod. 70, 71.
Thomas, Gulf Prod. 10.
Rigs, 3; wells drilling, 11; total, 14.

HIGH ISLAND

Smith, Gulf Prod. 2, 5.
Cade, Sun Co., 5, 8.
Wells drilling, 4.

JENNINGS
Rigs

Rayne, The Texas Company 1.
Arnadant, Gulf Refg. 37 (wo.)
Martin, R. N. Hines 3 (wo.)
Wells Drilling
S. F. S., Port City Oil 6.
Medlenka, Jennings Oil & Gas 1.
Fee, Crowley Fuel Oil 92.
Rigs, 3; wells drilling, 3; total, 6.

LOCKPORT
Rigs

Miller, Vacuum-Gulf 12.
Farquhar, Vacuum-Gulf 1.
Bayou D'Inde, Vacuum-Gulf 1.
Wells Drilling
Miller, Vacuum-Gulf 7, 8, 10, 11.
Bordages, Vacuum-Gulf 3.
Lock-Moore, Vacuum-Gulf 4.
Rigs, 3; wells drilling,6; total, 9.

MARKHAM
Wells Drilling

Kountz, Houston-Gulf Gas 1.
Kountz, Rycade Pet. 2.
Wells drilling, 2.

NASH DOME
Wells Drilling

Nash, Rycade Pet. 7, 8.
Wisdom, Rycade Pet. 8.
Flessner, Rycade Pet. 3 (wo.)
Wells drilling, 4.

ORANGE
Rigs

Brown, Sun Co. 3 (wo.)
Hager, Gulf Prod. 23.
Peveto, Gulf Prod. 6 (wo.)
Wells Drilling
McLean, Brownie Babbittee Oil 12.
Carbello, Rex Pet. 10, 2-B.
Chesson, Humble Oil & Refg. 27-A.
Winifree, Humble Oil & Refg. 4.
Mecoom, Peer Oil 1.
Chesson, Texhoma Oil 9.
Jackson, Supreme Oil 1.
Kishi-Lang, Gulf Prod. 11-A.
Winifree, Gulf Prod. 6.
Rigs, 3; wells drilling 10; total, 13.

ORCHARD
Wells Drilling

Moore, Gulf Prod. 7.
Well drilling, 1.

PIERCE JUNCTION
Rig

P. F. Settegast, Rio Bravo Oil 3.
Wells Drilling
Dooley, Texas Exploration 7.
Fee, Bashara Oil 1.
P. Settegast 2 (wo.) 3.
Rig, 1; wells drilling, 4; total, 5.

PIEDRAS PINTAS
Wells Drilling

Walsh, Humble Oil & Refg. 5.
Schalbert, Humble O. & R. 5.
Speer, Magnolia Pet. 1.
Wells drilling, 3.

SPINDLETOP
Rigs

McFadden, Yount-Lee Oil 9.
Davis, Yount-Lee Oil 2.
T. & N. O., Rio Bravo Oil 4.
McLean, Atlantic Oil Prod. 3.
Banker, Turnbow Oil 1.
McFadden, Unitd Oil 89.
Weed, Gulf Prod. 4.
Mann, Gulf Prod. 3.
Oakwood, Gulf Prod. 2, 3.
Roche, Gulf Prod. 3, 4.
Wells Drilling
Gladys, Yount-Lee Oil 6, 7.
Fee, Yount-Lee Oil 1, 2, 3.
Trembly, Yount-Lee Oil 1.
McFadden, Yount-Lee Oil 7, 8.
McLean, Sun Co. 2, 3.
T. & N. O., Rio Bravo Oil 3, 5.
Trembly, Seven Oil 1.
Trembly, Pirch & Ttelshaw 5.
McLean, Atlantic Oil Prod. 1, 2.
Scharbauer, Deutser Oil 1.
McFadden, Unity Oil 88.
Garrick, Barbee et al 1.
Ewing, Combest et al 1.
Weed, Gulf Prod. 3.
Mann, Gulf Prod. 2.
Oakwood, Gulf Prod. 1.
Jack-Duff, Gulf Prod. 1.
Roche, Gulf Prod. 1, 2.
Rigs, 12; wells drilling 26; total, 38.

SARATOGA
Well Drilling

Cotton, Rio Bravo Oil 5.
Well drilling, 1.

SOUR LAKE
Rigs

Gilbert, Yount-Lee Oil 5.
Lynn, Yount-Lee Oil 2.
Hardin, Lake View Oil 49.
Fee, The Texas Company 303.
Eunice, Eunice et al 1.
Wells Drilling
Fee, J. F. Bashara 1.
Bashara, Humphrey Corp. 1-A, 1-B.
Kelly, Humphrey Corp. 1.
Libby, Sun Co. 1.
Merchant, Orange Pet. 1.
McLean, Gulf Prod. 1.
Rigs, 5; wells drilling, 7; total, 12.

SOUTH LIBERTY
Wells Drilling

Harrison, Peer Oil 1.
Mitchell, Premium Oil 1.
Lecour, Costal Oil 1.
Wells drilling, 3.

VINTON
Wells Drilling

Vincent, Gulf Refg. 42.
Gray, Gulf Refg. 5, 2.
Rescue, Vinton Pet. 21.
Harmony, Vinton Pet. 15.
Vincent, Vinton Pet. 17.
Vincent, The Texas Company 3.
Gray, The Texas Company 2-C.
Vincent, Edgerly Pet. 10.
Gray, Marrs McLean, 11.
Johnson, Vinton Oil Syndicate 2 (sd.)
Gray, Supreme Oil 3.
Wells drilling, 12.

MISCELLANEOUS

McLean, Brownie Babbittee Oil	1500
Cow Bayou, Rycade Pet. 5-B	115
Hager, Gulf Prod. 4 (wo.)	4200
Chesson, Humble Oil & Refg. 25-A	200
Cow Bayou, Rycade Pet. 10	200
Hager, Gulf Prod. 23	abd
Carbello, Rex Pet. 4-B (wo.)	100
Hager-Moore, Gulf Prod. 1 (wo.)	1000
McGuire, Kishi Dev. 7	100
Winifree, Orange Pet. 3 (wo.)	150
Briggs-Moore, Gulf Prod. 2	800
Wells completed	13
Production	9865
Abandoned	2

PIERCE JUNCTION

Taylor, Gulf Prod. 18	sw
Cain, Navarro Oil 3	3500
Wells completed	2
Production	3500

SPINDLETOP

Weed, Gulf Prod. 2	1,700
Mann, Gulf Prod. 1	2,000
McFadden, Yount-Lee Oil 6	3,000
Weed, Gulf Prod. 1	2,500
Gladys, Yount-Lee Oil 5	3,500
Davis, Yount-Lee Oil 1	6,000
McLean, Sun Oil Co. 1	4,500
Quinn, Hines Brothers 1	3,500
T. & N. O., Rio Bravo Oil 1	3,000
Gordon, Paggi Brothers 1	2,400
T. & N. O., Rio Bravo Oil 2	8,000
Wells completed	11
Production	49,100

ROCKY MOUNTAIN AREA

WYOMING

Summary of Field Operations

District—	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Big Muddy	1	5	0	0	0	4	4
Salt Creek	37	2,038	2	0	20	147	167
Lance Creek	0	0	0	0	1	2	3
Big Horn Bsn.	6	445	2	0	4	57	61
Lost Soldier & Carbon Co.	9	1,425	2	3	7	22	29
Rock River District	0	0	0	0	0	14	14
Fremont Co.	1	150	0	0	0	33	33
Osage	0	0	0	0	3	4	7
Natrona Co.	1	0	1	0	0	8	8
Lincoln and Uintah Cos.	0	0	0	0	4	31	35
Baxter Basin	0	0	0	0	0	8	8
Miscel.	1	0	1	0	2	28	30
Total July	56	4,063	8	3	41	358	399
Total June	37	6,636	6	1	37	348	385
Difference	19	*2.573	2	2	4	10	14

*Decrease.

MONTANA

Summary of Field Operations

District—	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Sunburst	54	9,507	17	4	7	57	64
Cat Creek	1	0	1	0	1	15	16
Miscel.	3	0	1	2	4	56	60
Total July	58	9,507	19	6	12	128	140
Total June	47	4,839	21	3	17	148	165
Difference	11	4,668	2	3	5	20	25

COLORADO

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Total July	12	3,749	4	1	16	97	113
Total June	13	690	6	3	14	101	115
Difference	1	3,059	2	2	2	4	2

UTAH

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Total July	0	0	0	0	2	31	33
Total June	0	0	0	0	3	31	34
Difference	0	0	0	0	1	1	1

NEW MEXICO

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rigs	Drg.	Ttl.
Total July	13	1,390	5	0	8	151	159
Total June	12	195	7	0	13	132	145
Difference	1	1,195	2	0	5	19	14

BIG MUDDY
Wells Drilling

9-33-76 Crary, Texas Production Co. 33.
8-33-76 Humphrey Continental Oil 39.
9-33-76 Whiteside, Continental Oil 40.

Shut Down

3-33-76 Fenix, Continental Oil F4.
Rigs, 0; wells drilling, 4. Total, 4.

SALT CREEK
Rigs

6-39-78 SE, Mtn. & Gulf 8A.
35-40-79 SE, Midwest Oil 31A.
22-40-78 Continental Oil 21, 29.
13-39-79 SE, Blackstone Salt Creek 4F
34-39-78 SW, Mammoth Oil Co. 302.
34-39-78 NW, Mammoth Oil Co. 305.
28-39-78 NW, Mammoth Oil Co. 405.
28-39-78 NE, Mammoth Oil Co. 406.
13-38-78 SW, Wyoming Teapot Oil Co.
16-39-78 NE, Nicolaysen et al.
19-40-78 NE, Norris Oil Co. 18-A.
10-38-78 NW, Mammoth Oil Co. 302.
2-39-79 NE, Sinclair Wyoming 11.
6-39-78 NE, Mtn. & Gulf, 29-A.
31-39-78 SE, Teapot Development Co.
1-39 79 SE, Continental Oil 11A.
6-39-78 NW, Carter Oil 12D.
17-39-78 SE, Argo Oil Co. 2M.
8-39-78 NE, Western States O. & L. 21A

Wells Drilling

11-39-78 SW, E. T. Williams 15A.
23-40-78 NW, Wyoming Oil Fields 15A.
23-40-79 SW, Wyoming Oil Fields 4A.
25-40-79 NE Wyoming Oil Fields 21A.
26-40-79 NW, Wyoming Asso. 22A.
35-40-79 SE, Wyoming Asso. 25A.
30-40-78 NW, Wyoming Asso. 17A.
1-39-79 NW, Wyoming Asso. 29A.
34-40-79 SE, Wyoming Asso. 7A.
34-40-79 SE, Wyoming Asso. 1L.
23-40-79 SE, Wyoming Asso. 33L.
35-40-79 NW, Wyoming Asso. 31L.
34-40-79 NE, Wyoming Asso. 36L.
35-40-79 NW, Wyoming Asso. 15L.
35-40-79 NW, Wyoming Asso. 6L.
26-40-79 SW, Wyoming Asso. 31L.
35-40-79 SE, Wyoming Asso. 4L.
26-40-79 NE, Wyoming Asso. 26.
24-40-79 NE, Wyoming Asso. 19A.
23-40-79 SW, Wyoming Asso. 29A.
34-40-79 NE, Wyoming Asso. 36A.
34-40-79 SE, Wyoming Asso. 1A.
30-40-79 SW, Wyoming Asso. 26A.
2-39-79 NE, Wyoming Asso. 26A.
35-40-79 NW, Wyoming Asso. 31A.
25-40-79 SW, Wyoming Asso. 20A.
34-39-79 SE, Salt Creek Cons. 36L.
31-40-78 NW, Salt Creek Cons. 11A.
31-40-78 SW, Salt Creek Cons. 8A.
31-40-78 NW, Salt Creek Cons. 29A.
34 40 79 SE, Salt Creek Cons. 34A.
31-40-78 NW, Salt Creek Cons. 9A.
35-40-79 SW, Midwest Oil 5 SD.
35-40-79 NE, Midwest Oil 18.
14-40-79 SE, Midwest Oil 15A.
25-40-79 SW, Midwest Oil 6L.
11-40-79 SE, Midwest Oil 15A.
25-40-79 SW, Midwest Oil 4A.
2-39 79 NW, Midwest Oil 6A.
19-40-78 SW, Midwest Oil 11A.
23-40-79 SW, Midwest Oil 3A.
23-40-79 NW, Midwest Oil 33A.
36-40-79 SW, Midwest Oil & Wyo. Asso. 30A.
13-40-79 NW, Midwest & Wyo. Asso. 20A.
36-40-79 SW, Midwest Oil & Wyo. Asso. 13A.
12-40-79 SW, Midwest Oil & Wyo. Asso. 22A.
21-40-79 SE, Hugh Johnson et al 11⅞.
32-40-78 SW, Continental Oil 21A.
18-39-78 Tract 1, Ohio Oil 3.
34-40-78 Continental Oil 12A.
29-40-78 Tract W, Texas Prod Co. 20A.
19-40-78 Tract M, Texas Prod. Co. 13A.
23-40-79 SE, Wyoming Oil Fields 24L.
23-40-79 SE, Wyoming Oil Fields 34L.
25-40-79 NW, Wyoming Oil Fields 31L.
25-40-79 NW, Wyoming Oil Fields 19L.
26-40-79 NE, Wyoming Oil Fields 36L.
23-40-79 SW, Wyoming Oil Fields 16.
26-40-79 NE, Wyoming Oil Fields 27.
26-40-79 NE, Wyoming Oil Fields 23.
26-40-79 NE, Wyoming Asso. 4L.
14-40-79 SW, Wyoming Asso. 13.
24-40-79 SW, Wyoming Asso. 16.
26-40-79 NW, Wyoming Asso. 34.
26-40-79 NW, Wyoming Asso. 20.
35-40-79 NW, Wyoming Asso. 24.
26-40-79 NE, Wyoming Asso. 28.
26-40-79 NW, Wyoming Asso. 33.
34-40-79 NW, Wyoming Asso. 24.
14-40-79 SE, Wyoming Asso. 22.
35-40-79 NW, Wyoming Asso. 36A.
34-40-79 NE, Wyoming Asso. 29A.
25-40-79 SW, Wyoming Asso. 24A.
24-40-79 NW, Wyoming Asso. 13A.
34-40-79 SE, Salt Creek Cons. 36L.
31-40-78 NE, Salt Creek Cons. 18A.
34-40-79 SE, Salt Creek Cons. 36A.
31-40-78 SW, Salt Creek Cons. 1A.
3-39-79 NE, Salt Creek Cons. 1A.
23-40-79 SW, Midwest Oil 1A.
35-40-79 NE, Midwest Oil 24A.
35-40-79 SW, Midwest Oil 3L.
23-40-79 NE, Midwest Oil 31L.
35-40-79 NE, Midwest Oil 19L.
25-40-79 NW, Midwest Oil 4L.
35-40-79 SW, Midwest Oil 6L.
35-40-79 SW, Midwest Oil 31L.
26-40-79 SE, Midwest Oil 1L.
35-40-79 NE, Midwest Oil 16L.
35-40-79 SW, Midwest Oil 13L.
26-40-79 SW, Midwest Oil 15L.
2-39-79 NW, Midwest Oil 6L.
26-40-79 SW, Midwest Oil 5L. 4.
14-40-79 NE, Midwest Oil 16A.
11-40-79 SE, Midwest Oil 33A.
14-40-79 NE, Midwest Oil 21A.
35-40-79 SW, Midwest Oil 1A.
14-40-79 NE, Midwest Oil 22A.
23-40-79 NW, Midwest Oil 16A.
34-40-79 NE, Midwest Oil 3A.
2-39 79 NW, Midwest Oil 4A.
14-40-79 NW, Midwest Oil 15A.
27-40-79 NE, Midwest Oil 22A.
11-40-79 SW, Midwest Oil 24A.
35-40-79 NE, Midwest Oil 31A.
35-40-79 SW, Midwest Oil 31A.
27-40-79 SE, Midwest Oil 30AS.
25-40-79 NE, Midwest Oil & Wyo. Asso. 16A.
25-40-79 SE, Midwest Oil & Wyo. Asso. 19A.
12-40-79 SW, Midwest Oil & Wyo. Asso. 14A.
36-40-79 NW, Midwest Oil & Wyo. Asso. 19A.
13-40-79 NW, Midwest Oil & Wyo. Asso. 14A.
7-39-78 SE, Continental Oil 8A.
14-40-79 SE, Midwest Oil 15A.
26-40-79 SE, Midwest Oil 18L.
5-39-78 NW, Western States O. & L. 29A.
2-39-78 NW, Salt Creek Cons. 21L.
28-40-79 SW, Jupiter Oil 34S.

Shut Down

26-40-79 NE, Wyoming Oil Fields 22L.
26-40-79 SE, Wyoming Oil Fields 22L.
35-40-79 SE, Wyoming Asso. 21SD.
23-40-79 SE, Wyoming Oil Fields 6L.
26-40-79 NE, Wyoming Asso. 31L.
26-40-79 SE, Midwest Oil 16L.
23-40-79 NW, Wyoming Oil Fields 36L.
2-38.78 SE, Staley-Foley Syndicate 34A.
35-39-78 SW, Staley-Foley Syndicate.
26-40-79 SE, Wyoming Asso. 22L.
10-40-79 SE, Empire State Oil 25A.
28-39-78 NE, Mammoth Oil 101.
29-39-78 NE, Mammoth Oil 108.
28-39-78 NE, Mammoth Oil 302.
28-39-78 NW, Mammoth Oil 205.
4-38-78 NW, Mammoth Oil 101.
23-39-79 NE, Evans Oil Corp.
29-39-78 NE, Omaha Lusk Oil Co.
6-39-78 NE, Mtn. & Gulf 34A.
32-40-78 SW, Jupiter Oil 27A.
2-39 79 NW, Midwest Oil 15L.
23-40-79 SE, Wyoming Oil Fields 4L.
35-40-79 SW, Midwest Oil 34L.
24-40-79 SW, Continental Oil 35A.
23-40-79 SW, Wyoming Asso. 19L.
34-40-79 NW, Wyoming Asso. 34X.
2-39-79 NW, Midwest Oil 3L.
Rigs, 20; wells drilling, 147. Totals, 167.

LANCE CREEK

Rigs

4-35-65 Putnam, Ohio Oil 3.

Wells Drilling

35-36-65 Apex, Buck Creek O. & G. 2.

Shut Down

18-35-65 NE, Union Oil Co.
Rigs, 1; wells drilling, 2. Total, 3.

BIG HORN BASIN

Rigs

5-47-90 Hetzler, Ohio Oil 1.
32-58-99 Hardrock Oil Co.
36-43-91 State, Utah Oil Ref. 2, 3.
5 48-90 Nowood, Carter Oil Co. 1.

Wells Drilling

8-51-100 Sonners, Ohio Oil 3.
15-55-97 Lot 43, Standard of California.
31-48-90 Tensleep, Ohio Oil 3.
31-58-99 Elk Basin, Midwest Refg. 1.
5-42-90 Avery, Utah Oil Ref. Co. 1.
26-43-91 Ft. Collins, Utah Oil Ref. Co. 1.
35-43-91 Weller, Utah Oil Ref. Co. 2.
24-56-98 Garland, Producers & Ref. 2.
11-46-99 Garry Oil & Dev. Co.
15-49-91 Shaffer & Tilley.
18-46-92 Washakie, Ohio Oil 4.
18-44-93 West Zimmerman Butte Oil.
20-52-101 NE, Washington Oil & Gas.
14-47-102 Big Horn Dev. Co.
21-53-101 Taylor Bros.
7-46-92 Washakie, Ohio Oil Co.
5-51-97 SW, C. M. Carroll et al.
9-54-94 SW, Wisconsin Hines Co.
15-44-95 SW, F. L. Pierce.
19-54-93 SW, Crystal Creek Synd.
32-47-100 NW, Prairie Oil & Gas.
19-46-98 State, Ohio Oil 41, 42.
-56-98 Elk Butte Oil & Gas.
34-43-91 SE, Union Oil 1A.
28-43-91 NW, Union Oil 1A.
10-56-95 SE, Allen Oil Co.
31-43-93 Utah Oil & Ref. 3.
33-43-94 SW, Wyoming Montana Oil Co.
17-46-98 Washakie, Ohio Oil 1.
28.44-95 NE, F. A. McPherson.
2-44-96 F. A. McPherson.
11-49-102 T. A. Stancliffe.
29-56-97 SW, Utah Southern Oil Co.
8-43-91 Murphy Dome, Producers & Ref. 1.
33-56-98 Cross Gas, Ohio Oil 2.
21-53-101 Cody Oil & Gas 2.
9-46-101 Union Oil of California.

Shut Down

2-47-100 NE, Midwest Refg. Co.
35-57-91 NE, American Indian Oil Co.
4-51-100 Florence Oil Co.
3-55-97 Griffin, Allen Oil Co.
34-56-97 Linton, Allen Oil Co.
31-45-99 NW, Kasoming Oil Co.
27-46-98 Rankin, Dickie Oil Co.
8-46-98 Grass Creek Producers.
3 56 90 Beck Petrol. Co.
16-47-100 Big Horn Dev. Co.
19-51-92 Bruce Holding Co.
34-43-92 C. D. Markham et al.
10-54-95 SE, Westland Oil Co.
35-55-95 Westland Oil Co.
20-54-100 NE, Pittsburg Southwestern O. & G.
11-47-102 Omar O .& G.
10-56-98 Tunador Oil Co.
19-51-92 Torchlight Oil Corp.
5-54-95 SW, Royal Oil Co.
Rigs, 4; wells drilling, 57. Total, 61.

LOST SOLDIER AND CARBON COUNTIES

Rigs

24-21-88 E. R. Goode.
12-19-87 Marland Oil Co.
29-26-87 Producers & Ref. 3.
28-21-86 Grenville, Producers & Ref. 1.
11-26-90 Prairie Oil & Gas 5B.
14-21-84 St. Mary's Producers & Ref. 1.
3-27-90 Good, Texas Prod. Co. 5.

Wells Drilling

16-26-88 General Petro.
25-26-87 Producers & Ref. 17.
3-26-90 SE, Prairie Oil & Gas 70A.
11-26-90 Prairie Oil & Gas 66A.
11-26-90 Prairie Oil & Gas 71A.
14-20-88 Lake Valley Oil Co.
30-26-87 Producers & Ref. 1.
3-26-90 Prairie Oil & Gas 72A.
29-26-87 Producers & Refiners 18.
7-26-89 Producers & Ref. 5.

Shut Down

3-26-90 Sand Hills Oil Co. 5.
28-26-88 Govt. land, Columbia Petro. Co.
4-26-90 SE, Sand Hills Oil Co. 4.
9-26-90 SE, Major Oil Co.
26-25-89 NW, E. R. Goode.
24-27-90 SW, Annabelle Wyoming Oil.
10-26-90 Prairie Oil & Gas 65.
28-26-86 Portland Wyoming 1, 2.
21-26-86 Portland Wyoming 3.
11-26-90 Prairie Oil & Gas 22.
3-25-86 Govt. land, General Petro. 2.
Rigs, 7; wells drilling, 22. Total, 29.

ROCK RIVER

Wells Drilling

3-19-78 H. & C., Ohio Oil 4.
2-19-78 H. & C., Ohio Oil 11.
34-20-78 SW, M. L. Lundy.
8-17-77 SE, Texas Prod. Co.
13-17-77 SE, Texas Prod. Co.
25-21-79 SE, Southwestern Petro. Co.

Shut Down

34-23-79 Central Pipe Line Co.
1-18-78 Dutton Creek, Midwest Ref. Co.
10-18-77 Carbon County Oil Co.
12-27-77 McLaughlin et al.
26-21-78 NW, Southwestern Petro. Co.
26-21-78 SW, G. A. Briggs.
23-21-78 SW, G. A. Briggs.
23-21-79 SE, Southwestern Petro. Co.
35-21-79 NW, Southwestern Petrol Co.
Rigs, 0; wells drilling, 14. Total, 14.

FREMONT COUNTY

Wells Drilling

10-32-95 Producers & Refiners 5.
21- 1- 1 Bridger Oil Co.
19-27-95 Brimmer, Prairie Oil & Gas 2.
7-27-95 Van-Wyo., Prairie Oil & Gas 1.
9-31-98 Martin F. Fold.
14-32-80 Meyers Petro. Co.
13-28-93 Spencer et al.
10-28-92 SE, Union Oil Co.
18-28-93 Producers & Refiners 1.
13-28-93 Producers & Refiners 3.
27- 6- 3 Kinney Coastal Oil Co.
21- 1- 1 Wyoming Syndicate.
14-32-95 NW, Riverton Petrol. Co.
15- 5- 1 Carter, Union Oil Co.
30- 1- 2 Wm. M. Campbell.
27- 3- 1 Lot 4, Pilot Butte Oil & Gas.
15-32-95 SE, Texas Production Co.
17-33-94 Winter Baker Interests.
27- 1- 1 Garner, Union Oil Co.
14-32-95 Producers & Refiners 7.
Lander District, Frank England, Trustee.

Shut Down

26-27-93 American Workers Oil Co.
36-37-94 Wyoming Syndicate.
6- 6- 2 SW, Union Oil Co.
18-26-95 Sage Creek Petro. Co.
29-27-95 Fremont Petro. Co.
32- 6- 2 Miles City Petro. Co.
3- 1- 2 NE, Teton Petro. Co.
4-31-98 Derby Dome Wyoming Oil Co.
4-31-98 Burnside Oil Co.
16- 6- 2 Union Oil Co. 11, 12.
24-32-95 Seal Oil Co.
Rigs, 0; wells drilling, 33. Total, 33.

OSAGE

Rigs

30-46-63 NE, Glenn Oil Co.
31-47-63 L. B. Hanson.
17-46-63 LaFleiche Oil Co.

Wells Drilling

Fawcett Ranch, Harry Briggs et al.
42-46-63 Wyoming Oil & Gas.

Shut Down

-45-61 Lenhardt & Briggs.
4-46-63 Griffith Oil Co.
Rigs, 3; wells drilling, 4. Total, 7.

NATRONA COUNTY

Wells Drilling

3-37-85 Natches, Midwest Ref. Co.
32-38-83 Wilson, Marland Oil Co.
30-34-81 Mosher No. 5 Syndicate.
33-34-82 Bradford Wyoming.
32-34-77 Geary Dome, Continental Oil Co.

Shut Down

15-32-82 Bessemer Bend Dev. Co.
5-39-80 NW, Vernon Oil Co.
10-35-85 New York Oil Co.
Rigs, 0; wells drilling, 8. Total, 8.

LINCOLN & UINTAH COUNTIES

Rigs

31-28-113 Tip Top Oil Co.
12-39-113 Cretaceous Oil Co.
27-27-113 Beneficial Oil Co.
4 26 113 Wyoming Reserve Oil Co.

Wells Drilling

9-29-113 Guy B. Hockett et al.
16-27-113 Good & Nutting.
20-19-116 C. C. Conger.
14-21-117 NE, Pioneer Oil Co.
30-15-118 NE, Stanberg Petro. Co.
22-27-113 NW, W. F. Atkins.
26-27-113 NW, Myrta Bennett.
17-27-113 SE, Elkhorn Oil Co.
Near Afton, Great Western Oil Co.
23-31-113 Three States Oil Co.
3-26-113 Superior Oil Co.
15-21-117 Pacific Properties Co.
6-15-118 Vulcan Oil Co.
7-28-114 Chas. Lackey et al.
3-26-113 W. D. Newlon et al.
23-27-113 Fawcett Interest.
6-15-118 Olson Brothers.
26-27-113 Wooten Interests.
22-27-113 Portland Oil Co.
8-26-113 SE, Reece Oil Co.
27-27-113 NW, Reece Oil Co.
9-26-113 Uintah, Transcontinental Oil.

Shut Down

32-19-110 NE, Granger Oil & Gas.
22-28-112 NE, Margaret Kay.
24-16-118 NW, Mrs. D. Connell 3.
22-26-113 Big Piney Oil Co.
4-26-113 SE, Uintah Oil Co.
3-26-113 Wyoming Reserve Oil Co.
35-27-113 SE, Associated Prod. Synd. 2.
27-27-113 NW, Beneficial Oil Co.
32-19-116 Conger et al.
Rigs, 4; wells drilling, 31. Total, 35.

BAXTER BASIN

Wells Drilling

11-19-104 Producers & Refiners-Marland.

Shut Down

26-17-104 Associated Oil Co. 3.
23-17-104 SE, Associated Oil Co.
24-17-104 SE, Montacal Oil Co.
8-16-104 SE, Montacal Oil Co.
30-18-104 Midwest Ref. Co. 6AX.
26-17-104 SE, Associated Oil Co.
27-17-104 Montacal Oil Co.
Rigs, 0; wells drilling, 8. Total 8.

MISCELLANEOUS

Rigs

Baggs Dome, M. M. Armstrong.
Agate Basin, Hollingsworth et al.

Wells Drilling

5-31-70 Criterion Oil Co.
35-17-70 Horse Creek, Carter Oil Co. 1.
17-48-82 Rider, Carter Oil Co.
17-46-82 R. C. Tarrant et al 2.
12-26-27 Platte Valley Brilling Co.
8-44-60 Briggs & Sartain.
5-51-67 C. M. Carroll et al.
28-42-78 Seattle Synd.
Guernsey Dist., Illinois Synd.
28-42-79 Montana Giant Oil Co.
Buffalo Dist. Kinney Coastal Oil Co.
16-33-68 SW, Schuyler et al.
1-32 68 A. E. Maught et al.
32-62-67 SW, Western Consolidated Oil Co.
4-32-82 SE, Carl Sackett et al.
7-48-82 Fairway Oil Co.

Shut Down

24-49-64 Osage Trust Co.
31-50-69 Rosette Oil Co.
20-29-68 Nebraska Oil Co.
18-29-68 Glendo Oil & Gas.
6-28-62 Foreman et al.
1-44-61 Osage Trust Co.
9-41-80 Newcomb et al.
31-57-67 NW, Atlas Oil Co.
11-45-65 Reserve Oil Co.
28-47-65 NE, Gose Syndicate.
35-48-64 Lilley, Pump Creek Oil & Gas.
13-26-66 A. E. Jacobs.
Rigs, 2; wells drilling, 28. Totals, 30.

MONTANA

CAT CREEK

Rigs

12-15-28 NE, Shaffer Oil Co.

Wells Drilling

11-15-29 Cooke-Coolidge.
12-15-29 NE, Standard of Calif. 7.
12-15-28 Van Tassel, California Co.
23-14-28 Winnett, Pacific Oil Co.

Shut Down

21-15-30 Masser, Kessling Oil Co.
1-15-29 Custer Oil Co.
9-15 29 NE, Frantz Corporation.
13-15-29 Green, Frantz Corporation. 10.
14-15-29 Clayton, Frantz Corporation 15.
36-16-28 NE, Hardrock Oil Co.
5-15-29 Midwest Ref. Co.
7-15-29 NW, Hogan et al 2.
11-15-29 Fifty Six Pet. Co.
15-15-30 Swartz et al.
28-16-28 Peerless et al.
Rigs, 1; wells drilling, 15. Total, 16.

KEVIN SUNBURST

Rigs

29-35- 1 Benton, Arronow Oil Co.
4-35- 2 Swears, C. Beardsley 1.
20-31- 2 McBride, Canadian Oil Co.
25-36- 2 Troy Island Oil Co.
17-31- 1 Potlatch Oil Co. 2.
30-35- 1 Stannard, Wallace Oil Co.
20-35- 1 Steele, Big West Oil Co.

Wells Drilling

25-35- 2 Knobes Howe McCormick.
20-33- 1 Dailey, Flood Watson 1.
25-35- 2 Stannard, Wyomont P. & R. 8.
1-34- 2 Steele, Oldsbury Synd.
27-35- 2 Victoria Sunburst.
31-35- 1 Byrne, Rose Oil Co. 13.
26-35- 3 Sohn, Trap Oil Co.
7-34- 1 Russel, Reservation Oil Co.
11-34- 1 Cascade Oil & Gas.
30-35- 1 Stannard, Rose Oil Co. 3.
9-32- 2 Suhr, Sunburst Prod. Co.
33-34- 2 NE, Frazier Oil Co.
8-34- 2 Pittsburg Montana Oil Co.
32-36- 2 Roundsley, Sunburst Oil & Gas.
24-32- 1 Shelby Syndicate.
28-37- 2 McAlpine, Spartan Oil Co.
20-35- 2 Halter, Sunburst Prod. Co.
18-34- 1 Skinner, Creel et al.
32-35- 1 Putnam, Keystone Oil Co..
7-34- 1 Harte, Russell et al.
30-35- 1 Tri State Oil Co. 3.
9-34- 2 O'Haire et al.
35-35- 2 Sunburst Oil & Gas.
22-35- 2 SW, Lorenson et al.
2-34- 2 DeGroat, Etheridge Basin O. & G.
29-35- 1 Maughan, Sweeney Oil Co. 4.
17-35- 2 Frazier, Rice Oil Co.
30-35- 1 Stannard, Tri State Oil Co. 5.
8-34- 2 Hurley, McDonald et al.
1-34- 2 Steele, Bruce Radigan No. 2.
1-34- 2 Faunce, McIntyre Beckett.
21-35- 1 Whitney, Ohio Oil 2.
30-35- 1 Maughan, Ohio Oil 11.
14-34- 2 Dachsteiner, Ohio Oil 1.
27-35- 2 Smoke, California Co. 5.
28-34- 1 Barger, O'Neil Bros.
1-35- 5 Berger, Sand Point Oil Co.
28-35- 1 Levernick, Deloraine Synd.
35-35- 2 Cope Interests.
30-35- 1 Stannard, Rice Oil Co. 12.
25-35- 2 McKee, California Co. 7.
30-35- 1 Stannard, Tri State Oil Co. 11.
30-35- 1 Emmons, Dakota Montana 14.
27-35- 2 Lashbaugh, O'Neil Bros. 2.
36-35- 2 State, Adams Oil Co. 4.
14-34- 2 Jenkins, Creel Sunburst.
18-34- 2 Skinner, No Jack Oil Co.
23-36- 3 Carroll, Red Top Oil Co.
18-33- 2 Halverson, Minot Shelby Holdnig Co.
5-35- 3 Bell Fey Company.

Shut Down

21-36- 3 Herman, Kevin Oil & Gas 3.
28-35- 1 Shelby-Federal Miller.
23-33- 1 Webb, Shelby Oil & Gas.
12-34- 1 Peterson, Lucky Forty Oil Co.
13-32- 2 Campbell, Campbell Syndicate.
16-34- 2 Rainbow Oil Co.
21-34- 1 Adams, Potlatch Oil Co.
Rigs, 7; wells drilling, 57. Total, 64.

MISCELLANEOUS

(Montana)

Rigs

24-14-15 Fullerton Oil & Gas.
12-10-32 Hibbard Oil Co.
4-28-30 Mid Continent Oil Co.
34-23- 2 Rainbow Syndicate.

Wells Drilling

31-21-20 Round Butte Dev. Co.
23- 1-21 Delmar Oil Co.
24- 1-21 Diamond, Record Petroleum Co. 3.
36- 1-12 State, Springdale Oil Synd.
24- 1-21 SW, Record Petro. Co. 4.
Medicine Hat, Roth Syndicate.
34-23- 2 Allen Oil Co.
1-31-31 Big Dome Oil Co. 2.
28- 8.45 Montana Bell Oil & Gas.
25-17-24 California Co.
21-37- 5 Utah Western Petro. Co.
31- 7-21 SW, Atlantic Petro. Co.
33-19- 7 SW, Hager Stevenson Oil & Gas.
13- 8- 2 Coal Ridge, Montana Oil & Gas.
5- 3-16 Montana Portland Oil Co.
34-16-28 H. H. Schwartz, Jr.
9-31-19 California Co.
16-15-25 SW, Great Northern Mutual.
Devils Basin, Alberta Block Coal Co.

Shut Down

32-25-30 Butler Oil & Gas.
24-30- 1 Continental Prod. Co.
17- 3-19 Snyder, Mid Northern Oil Co.
4-27-20 California Co.
20-24- 1 McDonald et al.
3-27- 8 Robinson et al.
McDonald Creek, Wilson Fisher 3.
32-36- 2 Weill Syndicate.
7- 8 58 California Montana.
18- 2-18 NE, Gibson Land Co.
29-38-28 Glasgow Exploration Co.
25-12- 1 Ainsworth, Neudigate Interests.
18-30- 3 Great Northern Producers.
4- 2-25 SW, McMinnemin et al.
24-10-39 Jones et al.
2-26- 2 Jones, M. M. Edwards.
18- 3-33 Securities Prod. Co.
5- 2-23 NE, American Indian Oil Co.
35-32-32 SW, Bowdoin Oil & Gas.
7-27- 7 Circle Oil Co.
26-10-29 Stellar Oil & Gas.
32-30- 2 Drake Oil Co.
18- 6-23 Minnember & Newman.
6-13-24 Fulton Oil Co.
7-21- 1 Tri City Oil Co.
12-11-13 Kalispell Synd.
2-28- 2 NE, Dry Fork Oil Co.
8- 4-22 NE, Hoosier Oil Co.
24- 5- 8 Potter Basin O. & G. Co.
10-18- 2 NE, Moscow Idaho Co.
38-30- 4 NW, West Virginia Oil Co.
24-14-25 NW, Henry Seibert.
14-31- 1 NW, Dunkirk Oil Co.
32- 3-16 SW, Consolidated Oil & Gas.
6- 2-24 American Indian Oil Co.
9-10-38 SE, Stellar Oil & Gas Co.
5-35- 1 NE, F. G. Ostland.
Rigs, 4; wells drilling, 56. Total, 60.

COLORADO

Rigs

16- 3-91 Henderson, Marland Oil Co. 1.
18- 6-86 State, Texas Prod. Co.
31- 2-102 Texas Prod. Co. 2.
10- 3-44 Yuma Valley Oil Co.
1- 8-68 Morrell, Petro. Production Co.
17- 8-68 Ft. Collins Chief Oil Co.
29-10-68 American Pet. Co.
12-38-78 Green Mt. Petro. Co.
31- 9-68 Midwest Oil & Gas.
27- 2-70 Rainbow Oil Dev. Co.
26- 9-69 NW, Farrel et al.
8- 9-68 NE, Union Junior Oil Co.
36-10-69 State, Senace Oil Co.
13- 6-68 SE, Panuco Exploration Co.
10-10-61 SE, Dougherty et al.
13- 1-46 Yuma Oil Co.

Wells Drilling

36- 8-69 State, Atlantic Petrol Corp.
30-10-68 Buckeye, Union Oil Co. 4.
6- 9-68 Scott, Union Oil Co. 2.
30- 8-68 Blounck, Union Oil Co. 2.
36- 9-69 State, Union Oil Co.
15-21-65 Union Oil Co. of Colorado.
10-24-69 Panuco Explo. Co.
14- 1-68 Smith, Retter Oil Co.
27-20-69 NW, Good Luck Oil Co.
22-12-100 Wm. T. Morris et al.
1-20-70 Continental Oil 573.
9-20-69 Continental Oil Co. 575.
9-20-69 Continental Oil Co. 576.
33- 5-91 Knowlton, Texas Prod. Co. 9.

10- 4-91 Wick, Texas Prod. Co. 4.
22- 4-92 Parkinson, Midwest Ref. Co. 4.
24- 2-103 Tidewater Asso. Oil Co.
33- 1-70 Denies, Repollo Oil Co.
30- 8-68 Blounck, Union Oil Co. 3.
30-10-68 Plummer, Union Oil Co. 1.
7-9-68 Yokey, Union Oil Co. 1.
19- 5-93 Rolapp, Shaffer O. & R.
4- 6-59 Belmont Oil Co.
19- 8-68 Larson, Union Oil Co. of Calif.
30- 8-68 Whitaker-Blunk, Union Oil Co. of Calif.
16-10-69 Buckeye, A. A. Rollstone Co.
28- 3-65 Watkins, Miller Oil Co.
24- 6-91 Patterson, Platte Valley Pet. Co.
1- 2-68 Orrison, Municipal Oil Co.
33- 8-69 NE, Hobart Petro. Co.
21-20-69 Majada Oil & Gas.
8-20-69 Wallace O. & M. Co.
23-33-12 Erdman Drilling & Producing.
13-33-12 NW, W. H. Hall et al
34-32-65 No Jack Oil Co.
8- 9-69 Warren, Union Oil Co. of Colorado.
6- 7-68 Brown, Fifty Four Oil Co.
13-33-13 Hall Murray Oil Co.
5- 8-103 Gypsy Oil Co.
31- 5-98 Morgan, Union Oil Co.
4- 6-68 Webster, Douglass Oil Co.
17- 5-64 Hog Ranch, Roland Oil Co.
5- 6-68 Majestic Oil Co.
4-32-67 Tulsa Oil Leasing Co.
34- 8-68 Ruff, Victory Oil Co.
9-12-68 Panuco Exploration Co.
1- 9-68 NW, Great Northern Oil Co.
30-27-45 NW, Lamar Oil Co.
6-10-69 NE, San Carlos Oil Co.
34-17-67 Mutual Oil Dev. Co.
12- 9-79 McCallum, Continental Oil Co.
16-21-65 Columbus Heights Oil Co.
9-17-67 John Jr., Red Creek Oil Co.
Fremont Co., Parkdale Oil & Gas.
7- 9-68 Bubble Lake, Union Oil Co.
28-28-52 SE, Colorado Oil Co.
15- 4-91 Pohlman, Texas Prod. Co.
30-10-68 Warren, Poudre River Oil Co.
1- 8-69 Warren, Consol. Oil Fields Co.
26- 7-92 NE, Boyles Oil Co.
31-18-61 Mineral Exploration Co.
16-20-69 E. R. Goode et al 2.
17- 9-68 Elder, Farrels Associates.
34- 8-69 Ruff, Equitable Oil Co.
Florence Field, Florence Petro. Co.
9-12-62 Ullum, Roland Oil Co.
3-32-12 Leidecker Pet. Co.
30-27-45 Johnson, Chesapeake Oil Co.
8- 8-102 Smith, Sun Oil Co.
6-23- 2 Hutchinson, E. J. Miley.
4-34- 2 Frisco, Mt. States Oil Co.
11- 4- 8 H. H. Temple et al.
6-23-62 State, Bent County O. & G.
11- 1-44 Yuma, Hessick Drilling Co.
17-34- 2 C. W. Kirkwood.

Shut Down

25- 1-69 Everhard, Boulder Oil Corp.
6- 8-102 Linquist, Midwest Ref. Co.
32-20-68 Baxter, Salida O. & R. Co.
31- 9-26 NW, White River Dev. Co.
30- 2-102 SE, Midwest Refining Co.
13- 8-68 Hoff, Centennial & Sunset.
33- 5-91 Hamilton, Texas Prod. Co.
28-28-32 Associated Oil of Colorado.
28-27-70 Gehrung, Sand Hills Oil Co.
18- 6-86 Texas Prod. 2.
32-31-61 Colorado Oil & Gas.
23- 6-69 Ruckvetter, Wellington Oil Corp.
19- 5-69 Alps, Gateway Oil Co.
23- 9-69 Waverly, Consol. Oil Fields Co.
32-10-68 SE, Imperial Oil Co.
25- 8-68 NE, American Pet. Corp.
24- 9-69 Hanna, Wellington Oil Co.
6- 7-68 NE, Bonner Oil Co.
17-17-64 NW, Peerless Oil Corp.
30- 4-68 NW, Panuco Exploration Co.
4-45-16 NW, Gilmore Oil Co.
24- 2-103 Rigby, Midwest Ref. Co.

Rigs, 16; wells drilling, 97. Total, 113.

UTAH

Rigs

6-30-21 Bodie, Empire Gas & Fuel Co.
18-23-21 Crescent Dome Pet.

Wells Drilling

8-26-22 Utah Oil Dev. Co.
4-22-19 SE, Crescent Eagle Oil Co.
31- 9- 8 Utah Pet. Co.
19- 9- 8 E. J. Raddatz.
27-41-19 Utah Southern Oil Co.
35-21-16 Culbertson, Marland Oil Co.
36-26-20 Shaffer, Midwest Refg. Co.
19-22-21 Utah Oil & Refg. Co.
36-40-90 Utah Oil Refg. Co. 2.
31-43-10 Utah Oil Refg. Co. 3.
16- 2- 5 State, Western Empire Oil Co.
32-42-17 Monroe Oil Co.
23- 3-24 Clay Basin Prod. & Refg. 2.
17-27-20 Shaffer, Midwest Refg. Co.
23-14-92 Mt. States Pet. Co.
27-21-19 Western States Dev. Co.
4-19-25 Chas. Orchard et al.

Shut Down

2-21-20 L. L. Travis.
21-22-22 Hope Syndicate.
6-14-13 San Juan Dev. Co.
23-42-17 Monumental Oil Co.
12-19-13 Ute Pet. & Utah Southern.
13- 4-16 Castle Dale Oil Co.
27-16- 4 Producers Oil Co.
Lakeside Dome, W. R. Holmes.
Diamond Fork, Franko Utah Oil Co.
34-25-21 NW, Big Six Oil Co.
25-13-13 Utah Central Oil Co.
Diamond Fork, Gustaven Oil Co.
Rosell District, Lakeside Oil Co.
7-21-19 Stanburg Pet. Co.

Rigs, 2; wells drilling, 31. Total, 33.

NEW MEXICO

Rigs

10-18-28 Dunn, Flynn, Welch & Yates 3.
20-31- 1 Paul S. Ache et al.
9-20-11 F. G. McMahon et al.
19-36-34 SW, Sinclair & Fenton.
17-31- 8 Huntington Park Oil Co.
10- 4-28 NW, Oliver Well.
5-18-28 State, Lever et al.
36- 1-21 Ingram, Navajo Oil Co.

Wells Drilling

18-18-28 Danciger-Beeson 2.
3-27-17 Table Mesa, Continental Oil Co. 8.
3-27-17 Table Mesa, Continental Oil Co. 9.
8-18-28 New State, Ohio Oil Co. 2.
5-17-32 Mitchell, Maljamar Oil & Gas.
3-17-32 Pearsall, Maljamar Oil & Gas.
13-18-32 McDonald & Jewett, Maljamar Oil & Gas.
35-17-28 NW, Phillips & Welch.
13-18-27 Hausenfus Drilling Co. 2.
22-17-31 NE, Skelley Oil Co.
10-20-29 State, Cook-Ironsides.
27-19-38 Govt., Mesculero Pet. Co.
12-17-31 Nichols, Ohio Oil Co. 1.
4-17-34 State, A. C. Bridges.
29-17-28 Texas Prod. Co.
15-11-26 Rodgers et al.
24-10-36 SE, Devites et al.
11- 5-35 Sanders, Frio Oil Co.
11- 3-32 Gurley, Contillon et al.
30-14- 9 Santa Fe, Hurst et al.
4- 1-30 NW, Capitol Oil Co.
32- 6- 1 New Mexico Dev. Co.
8- 6- 1 Navajo Oil Co.
10- 3-17 NW, Navajo Oil Co.
26- 7- 2 Swisher & Wallace.
13- 6- 2 Hub Oil Co.
25- 7- 2 Curtis & Mays.
32- 7-10 Minerman et al.
10-29-24 Eureka Oil Co.
10-28-26 Moore, Rivens & James.
2-29-19 Rattlesnake, Continental Oil Co. 17
3-27-17 Table Mesa, Continental Oil Co. 8.
15-21-33 NW, Covert et al.
3-27-17 Table Mesa, Continental Oil Co. 9.
5-18-27 Lever, Texas Prod. Co. 6.
29-17-18 Wilson, Texas Prod. Co.
28-18-28 NE, Flynn, Welch & Yates. 46.
28-18-28 Flynn, Welch & Yates 47.
32- 4- 6 McDonald, Ohio Oil Co. 1.
30-20-10 Bennedum & Trees.
3-18-28 SW, Levers & Carper 3.
29-10-10 Duke City Pet. Co.
27-17-16 Chebeque Syndicate.
22-25-21 Embar Oil Co.
8-26-18 Tocito, Continental Oil Co.
21-17-32 Balsh, Maljamar Oil & Gas.
15-17-32 Bearsley, Maljamar Oil & Gas.
5-18-32 Walker, Maljamar Oil & Gas.
1-18-32 Stroup, Maljamar Oil & Gas.
3-13-15 Santa Fe Pet. Co.
21-18-28 SE, Flynn, Welch & Yates 45.
5-17-28 SE, Miley Oil Co.
18- 7-21 Ventura Pet. Co.
3-18-27 Mann-Compton.
16-18-28 Comptno, Hausenfus, Lewellyn.
15-18-28 Wians, Harris & Rehn.
30-20-10 Pittsburg Oil Dev. Co.
29- 1-21 Steel-Rhinesmith.
17-18-28 SW, Cummins 2.
4-18-28 SE, Pueblo Oil Co.
14-15-17 NW, Arkansas Fuel Co.
20-29-11 NE, West Coast Gaso. Co.
4-21-27 Olson, M. M. Miller.
15-29-11 Bloomfield Oil & Gas.
15-23-24 California Co.
3-12-29 Bell, Marland Oil Co.
24- 8-23 SE, Lewis et al.
16-29-11 SE, C. S. Ringle.
34-29-11 C. S. Ringle.
4-21-30 SW, Van Cleve & Kronen 2, 3.
24-10-27 NW, R. C. Christman.
24-31-15 W. R. Childers.
8- 2-14 Simmons et al.
17-18-28 NW, W. G. Hurst.
9-10-28 SW, Danciger Bros.
33-17-20 SW, Wooley-Jones.
1-17- 9 Welch et al.
3-21- 2 Williams et al.
15-29-11 Butler-Stonacher Synd.
7-13-10 NW Wood et al.
19-21-19 NE, F. A. Black Drg. Co.
25-17-26 Patterson & Stumpf.
15-15-29 Southern Exploration Co.
8-16-27 Campbell, Colorado Gas & Fuel Co.
25-11-26 SW, N. Joner.
7-19- 1 La Ventana Oil Co.
22-18-27 SE, Colorado Drilling Co.
8- 6- 1 NW, DeChaves Pet. Co.
18-18-28 Danciger-Beeson 1.
8-18-28 NE, Sidler Drilling Co.
1- 6-27 SW, Steel-Rhinesmith.
9- 6-24 Grady Oil Co.
4- 2-20 Hinkle et al.
14-13-14 State Cons. Oil Co.
9-29-11 Bruce Breagle.
24-30-13 SW, Portage Oil & Gas.
33-18-28 SW, Snowden-McSweeney 4.
19-18-29 Bujac-Wade-Murphy.
1- 2-32 NE, Painter et al.
34-23-21 H. D. Adders.
34-29-11 Garland, Congress Oil Co.
23-33-12 Pulliam, Erdman et al.
13-33-12 Murry, W. H. Hall et al.
30-30-15 Bowman, Williams et al.
21-25-30 Sun Oil Co.
8-11-23 Gibson Oil Co.
25-31-18 Bartlett, Union of Calif. 2.
16- 1-27 McAdoo, Navajo Oil Co.

Shut Down

25-30-12 NE, Hall et al.
31-19-28 Pruitt, Ohio Oil Co. 1.
21-17-28 Johnson, Ohio Oil Co. 1.
28-18-28 SW, Twin Lakes Oil Co. 8.
5-18-27 NE, Swartz et al.
29-17-28 Texas Prod. Co.
10-27-17 Navajo, Continental Oil Co. 7.
34-14-44 SW, Meadow Oil Co.
26-11-27 SW, Buffalo-Roswell.
31- 3-15 NW, Wyo. Colo. Oil Co.
22-19-27 State, Oscar Howard.
24-29-11 Hubbel & Hall.
21-30-11 Home Gas Co.
2-19-26 Peckenbaugh, Eureka Oil Co.
1- 3-32 NE, Gurley Oil Co.
24-21-11 SE, Angelus Mining Asso.
30-13-10 SW, Wood et al.
6-29- 9 Detroit Oil Corp.
29-29-11 Montesuma Synd.
12-29-13 SW, Shiprock Oil Co.
9-30- 9 Rainbow Oil Co.
36-20-30 Yates, Keyes et al.
11-16-27 SE, Blue Bird Oil Co.
3-22-26 NE, Blue Bird Oil Co.
16-13- 9 Melstead No. 2.
25-13-31 SE, Standard Pet. Co.
11-20-29 Rawson, William Dooley.
26-18-18 New Mexico Oil Co.
30-28-11 New Mex.-Milwaukee Synd.
23-18-15 E. M. Treat & Co.
28-18-28 SE, Quillen & Dunnet.
15-12-23 NW, Zeppenfield Co.
16- 1- 7 NE, Fort Sumner Oil Co.
32- 7-10 SE, California Explor. Co.
33-11-35 Tilton & Croft.
23-16-20 Young, Ohio Oil Co.
8-16-27 SE, Irvine et al.
5-22-19 NE, Fl At Black Drilling Co. 2.

Rigs, 8; wells drilling, 151; total, 159.

WYOMING
WELLS COMPLETED

3-33-76 Barber, Glenrock Synd. 2 5
26-40-79 SE, Wyoming Oil Fields 19-A. 25
26-40-79 NE, Wyoming Oil Fields 13-L. 75
24-40-79 SW, Wyoming Oil Fields 19-A 20
24-40-79 SE, Wyoming Oil Fields 33-A 15
14-40-79 SE, Wyoming Asso. 19-A 18
24-40-79 NW, Wyoming Asso. 22-A 48
2-39-79 NE, Wyoming Asso. 3-A 80
23-40-79 SE, Wyoming Asso. 33-A 60
23-40-79 NE, Wyoming Asso. 24-A 50
26-40-79 SE, Wyoming Asso. 31-A 25
35-40-79 SE, Wyoming Asso. 33-A 20
30-40-79 SW, Wyoming Asso. 19-A 25
14-40-79 NW, Wyoming Asso. 21-A 75
24-40-79 NW, Wyoming Asso. 19-A 25
14-40-79 NW, Wyoming Asso. 16-A 35
35-40-79 SE, Wyoming Asso. 6-A 34
31-40-78 NE, Salt Creek Cons. 19-A 25
31-40-78 SE, Salt Creek Cons. 6-A 335
12-40-79 Mt. and Gulf 29-A 89
26-40-79 SE, Midwest Oil Co. 15-L 55
27-40-79 NE, Midwest Oil Co. 24-L 216
23-40-79 NE, Midwest Oil Co. 28-A 100
26-40-79 SE, Midwest Oil Co. 16-A 25
27-40-79 SE, Midwest Oil Co. 15-A 10
26-40-79 SW, Midwest Oil Co. 18-A 30
14-40-79 NE, Midwest Oil Co. 3-A 16
12-40-79 NW, Midwest & Wyo. Asso. 27-A 100
36-40-79 SW, Midwest & Wyo. Asso. 24-A 50
15-40-79 SE, Prairie Oil & Gas 10 ..... dry
15-40-79 SE, Prairie Oil & Gas 13 45
30-40-78 NE, Continental Oil Co. 8-A .. 40
11-39-79 SW, E. T. Williams 2-A 35
2-39-79 NW, Wyoming Asso. 21-SD ... dry
25-40-79 SE, Midwest & Wyo. Asso. 13-A 10
14-40-79 NW, Wyo. Asso. 22-AS 25
30-40-78 NE, Continental Oil Co. 8-A .. 40
19-40-78 SE, Continental Oil Co. 13 ... 25
36-58-100 Local Oil Co. 156
11-49-102 N. T. Clark ..... dry
55-97 Brown, Allen Oil Co. ..... dry
21-53-101 Guiterman et al 100
Torchlight Field, Richards et al 15
18-46-98 Local Oil Co. 2 180
13-29-82 Chase, Ohio Oil Co. 1 ..... dry
1-33-65 Manville Oil Co. ..... dry
11-26-90 Prairie Oil & Gas 22-A 75
16-26-88 Prairie Oil & Gas D-1 ..... gas
16-26-86 General Pet. Co. 20
9-21-84 St. Marys, Prod. & Ref. ..... dry
1-26-90 Prod. & Ref. 8 ..... gas
11-26-90 Prairie Oil & Gas 35-A 1250
11-26-88 Prairie Oil & Gas 67-A 80
32-26-27 Prod. & Ref. 2 ..... gas
16-26-90 Prairie Oil & Gas 30-A ..... dry
20- 2- 2 Hudson, Prod. & Ref. 150

Wells completed 56
Production 4063
Dry 8
Gas 3
Gas production 23,000,000

MONTANA
WELLS COMPLETED

26-15-30 Antelope, Continental Oil Co. 2 dry
10-35- 3 Bruins, Ohio Oil Co. 3 ..... dry
31-35- 1 Byrne, Fulton Oil Co. 16 140
36-35- 2 State, Homestake Explor. 10.. 800
33-35- 1 Develin, Collins et al 2 8
35-35- 2 Able, Ferdig Oil Co. 8 10
35-35- 2 Able, Ferdig Oil Co. 9 15
34-35- 2 Lashbaugh, Ferdig Oil Co. 14. dry
30-35- 1 Stannard, Tri State Oil Cp. 9.. 20
30-35- 1 Stannard, Tri State Oil Co. 10. 10
31-35- 1 Allen, Big West Oil Co. 18.... 100
31-35- 1 Emmons, Dakota Montana 11. 20
19-35- 1 Kalispel-Kevin, Arcus Oil 2 .. 15
35-35- 2 McCormick, Diamond Oil Co. 6 316
1-34- 1 Lewis, Wismont Oil Co. 2 .... gas
24-35- 2 Waite, Clara Oil Co. 4 ..... dry
27-35- 1 Zimmerman, Model Oil Co. 1. 7
36-35- 2 Abell, California Co. 6 6
24-35- 3 Freyberger, Maughans et al 1 4
7-34- 1 Russel, Reservation Oil Co. 1. dry
30-35- 1 Maughans, Ohio Oil Co. 10.... 8
23-35- 2 Reeg, Ohio Oil Co. 3 40
31-35- 1 Byrne, Fulton Oil Co. 17..... 20
36-35- 2 State, Homestake Oil Co. 11 ... 25
30-35- 1 Stannard, Alce Oil Co. 12 .... dry
11-34- 1 Peterson, Sturdevant Synd. 1. 25
36-35- 2 State, Homestake Oil Co. 12 . 35
36-35- 2 State, Homestake Oil Co. 13.. 1900
30-35- 1 Stannard, Rice Oil Co. 14 .... dry
32-35-1 Caine, 56 Pet. Co. 14 350
23-35- 2 Zimmerman, Big West Oil Co. 19 30
1-35- 2 Sindon, Ohio Oil Co. 2 ..... gas
24-34- 2 Morton, Medford Oil Co. 2 ... 75
36-35- 2 Adams, Homestake Oil Co. 4.. dry
24-34- 1 Demaire, Postlewait et al .... dry
17-35- 1 Murrile, Jonet ..... gas
27-35- 2 Lashbaugh, O'Neil Bros. 3 200
28-35- 1 Levenick, Deloraine Oil Synd. 2 30
18-34- 2 Jensen, Byorum 1 ..... dry
34-25- 2 Lashbaugh, Ferdig-Sunburst 15 dry
15-35- 1 Miller, Montana Eagle 1 ..... dry
17-34- 1 Larson, Pondera Valley Oil Co. 2 ..... dry
31-35- 1 Allen, Big West Oil Co. 20 ... 100
31-35- 1 Allen, Big West Synd. 1 ..... gas
14-34- 2 Jenkins, Creel-Sunburst ..... dry
19-35- 1 Kalispel-Kevin, P.M.K. Oil 3.. 25
34-35- 2 Lashbaugh, Ferdig Oil Co. 16. dry
1-34- 2 Lewis, Glacier Oil So. 3 ..... dry
25-35- 2 Byrne, Howe Oil Co. 1 ..... dry
18-34- 1 Johnson, Ohio Oil Co. 1 92
27-35- 2 Lashbaugh, O'Neil Bros. 2 ... 240
13-34- 2 Craig, Minot 1 ..... dry
30-35- 1 Stannard, Rice Oil 12 3600
31-35- 1 Byrne, Fulton Oil Co. 7 1200
25- 1-21 Hepp, Delmar Oil Co. 2 ..... gas
13- 6-17 Mackay, Ohio Oil Co. 1 ..... gas
22-27- 5 Hoeschen, Ohio Oil Co. ..... dry

Wells completed 58
Production 9507
Dry 19
Gas 6
Gas production 82,000,000

COLORADO
Wells Completed

7- 9-68 Gault-Piatt, Union Oil Co. 2 .. 760
4- 6-68 Webster, Associated Oil Co. .. dry
18- 9-68 Elder, Union Oil Co. 1 1150
7- 9-68 Stutchel Lake, Union Oil Co. 1000
19-16-48 Scholtz, California Co. ..... dry
4-20-69 Continental Oil Co. 574 50
1- 5-65 Deegen, A. A. Rollestone Co. 1 dry
18- 6-68 Henry Dennis, Texas Prod. Co. 714
10- 4-91 Wick, Texas Prod. Co. 3 ..... dry
8-20-69 Rosie Oil Co. 50
35-18-70 Steinmier, Gate City Oil Co. .. 25
4-34-62 Frisco, Mt. States Oil Co. ..... gas

Wells completed 12
Production 3749
Dry 4
Gas 1

NEW MEXICO
WELLS COMPLETED

17-17-28 Govt., Texas Prod. Co. ..... dry
8-18-28 NE, Texas Prod. Co. 5 50
12-18-27 SE, Pitcher Oil Co. 2 20
12-18-27 SE, Pitcher Oil Co. 3 20
13-18-27 State, Hausenfus Drg. Co. 1 .. 50
4-18-28 SE, Fite No. 1 ..... dry
11- 5-35 Sanders, Frio Oil Co. ..... dry
8-31- 1 Owens-Albuquerque ..... dry
8-26-18 Navajo, Continental Oil Co. .... dry
2-29-19 Continental Oil Co. 18 1000
21-18-28 Keyes, Flynn, Welch & Yates 4 100
35-17-27 Empire Gas & Fuel Co. 75
21-18-28 Flynn, Welch & Yates 48 75

Wells completed 13
Production 1390
Dry 6

BRADFORD FIELD

The following wells in the Bradford Field were reported too late to be included in the regular July report from that field published last week:

Wells Completed

Rew & Hodge, S. P. O. 1
Bingham, 212, S. P. O. 1
Cotton, S. P. O. 1
Kendall, S. P. O. 1
Whipple, S. P. O. 1
Jones, S. P. O. 1
Middaugh, S. P. O. 1
Tract 1, Hazelwood Oil 1
Tract 13, T. H. Kennedy 1
Borden fee, T. P. Thompson, Jr. 1
Borden fee, T. P. Thompson, Jr. 1

Wells Drilling

Rew & Hodge, S. P. O.
Bingham 212, S. P. O.
Kendall, S. P. O.
Whipple, S. P. O.
Jones, S. P. O. (2 wells.)
Tract 1, Hazelwood Oil.
Tract 25, Hazelwood Oil.
Tract 13, T. H. Kennedy.
Corwin, Cora M. Simon.
Duke & Taggart, Staley & Thomas.
Borden fee, T. P. Thompson, Jr.
Borden fee, T. P. Thompson, Jr.

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WRENCH
Points of Excellence
Extra large master bolt.
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WHAT AND WHERE TO BUY

A Classified Index of Advertisers in This Publication

For Alphabetical Index See Page 25

A

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Campbell, J. A.
Cooper, C. & G., Co.
Griscom-Russell Co.
National Gas Products Co.
Newton Process Mfg. Co.
Ross Heater & Mfg. Co., Inc.
Southwestern Engineering Co., Inc.
Southwestern Engineering Corp.

Absorption Towers—
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National Gas Products Co.
Newton Process Mfg. Co.

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Oxweld Acetylene Co.

Acetylene—Dissolved—
Prest-O-Lite Co., Inc.

Acetylene in Cylinders—
Prest-O-Lite Co., Inc.

Agitators—
Kaw Steel Construction Co.
Petroleum Iron Works Co.

Alloy Steel (See Steel—Alloy)—

All-Steel Drilling Rigs (See Rigs)

Aluminum Bronze Powder for Paint—
Aluminum Co. of America.

Ammonia—
Mathieson Alkali Works, Inc.

Anchor Clamps (See Clamps)—

Antimonial Leads—
Eagle-Picher Lead Co.

Apparatus—Electric—
Westinghouse Electric & Mfg. Co.

Apparatus—Motor Control—
Westinghouse Electric & Mfg. Co.

Appraisers—
American Appraisal Co.

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Brady Conveyors Corp.

B

Babbitts—
Eagle-Picher Lead Co.
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Ryerson, Jos. T., & Sons, Inc.

Back Up Tongs (See Tongs)—

Bailers—
Oil Well Supply Co.
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Axelson Machine Co.
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Atlas Ball Co.
Hoover Steel Ball Co.

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Hoover Steel Ball Co.
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Barytes—
National Pigments & Chemical Co.

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National Carbon Co.

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American Roller Bearing Co.
Timken Roller Bearing Co.

Bearings—Thrust—
Timken Roller Bearing Co.

Belting—
Bridgeport Machine Co.
Continental Supply Co.
Fenwick-Reddaway Mfg. Co.
Frick-Reid Supply Co.
Imperial Belting Co.
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Federal Supply Co.
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Hughes Tool Co.

Bits—Rotary Rock—
Hughes Tool Co.
Reed Roller Bit Co.

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Mathieson Alkali Works, Inc.

Blow-Off Valves (See Valves)—

Blowout Preventer—
Regan Forge & Engineering Co.
Stearns-Roger Mfg. Co.

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Boiler Feed Pumps (See Pumps)

Boilers—Horizontal Return Tubular—
Brownell Co., The
Kewanee Boiler Co.
Vogt, Henry, Machine Co.

Boilers—Oil Country—
Bovaird & Seyfang Mfg. Co.
Bridgeport Machine Co.
Brownell Co., The
Coatesville Boiler Works.
Continental Supply Co.
Devonian Boiler Works.
Frick-Reid Supply Co.
International Supply Co.
Kewanee Boiler Co.
Lucey Mfg. Co.
National Supply Co.
Oil Well Supply Co.
Pattin Bros. Co.
Republic Supply Co.
Titusville Iron Works.

Bolted Tanks (See Tanks)—

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Landis Machine Co.

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Illinois Glass Co.

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Andrews Steel Co.
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Dunn Mfg. Co.

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Plibrico Jointless Firebrick Co.

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Ajax Rope Co.
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Plymouth Cordage Co.
Wall Rope Works, Inc.

Bull Wheels—Steel—
International Derrick & Equipment Co.
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Eureka Burner Co.

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Continental Supply Co.
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Wilson Oil Tools Corp.

C

Cable Bit Steel—
Andrews Steel Co.
Federal Supply Co.
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Cables—Drilling, Manila—
Ajax Rope Co., Inc.
Columbian Rope Co.
Continental Supply Co.
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Murray Tool & Supply Co.
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Wickwire-Spencer Steel Corp.
Williamsport Wire Rope Co.

Calf Rope—
Ajax Rope Co., Inc.

Calf Wheels—Steel—
International Derrick & Equipment Co.
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Braden Co.

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Arbon, Paul, & Co.
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Smith Separator Co.

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Cups—Leather—
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Pure Oil Co.
Texas Company, The.

D

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Dephlegmators—
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National Gas Products Co.
Newton Process Mfg. Co.
Smith, A. O., Corp.

Depletion Reports—
American Appraisal Co.

Derricks—Steel—
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International Derrick & Equipment Co.
Marion Mch., Fdy. & Supply Co.
Moore, Lee C., & Co., Inc.
O'Brien Steel Construction Co.
Parkersburg Rig & Reel Co.
Superior Tube Co.

Derricks—Turnbuckle—
National Turnbuckle Derrick Co.

Diamonds for Core Drilling (See Carbon—Black Diamond)—

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Landis Machine Co.

Die Heads—Bolt Threading—
Bignall & Keeler Mch. Works.
Landis Machine Co.

Die Heads—Stationary Pipe Threading—
Bignall & Keeler Mch. Works.
Cox & Sons Co., The.
Landis Machine Co.

Diesel Engines (See Engines)—

Dies—Pipe Threading—
Bignall & Keeler Mch. Works.
Cox & Sons Co., The.
Landis Machine Co.
Nye Tool & Machine Works.

Direct Driven Pumps (See Pumps)

Disc Bits (See Bits—Disc)—

Dissolved Acetylene (See Acetylene)—

Ditchers—Pipe Line—
Barber-Greene Co.
Buckeye Traction Ditcher Co.

Draw Works—
Lucey Mfg. Corp.
National Supply Co.
Titusville Iron Works Co.

Drillers Hose (See Hose)—

Drilling & Fishing Tools—
Acme Fishing Tool Co.
Baash-Ross Tool Co.
Bovaird & Seyfang Mfg. Co.
Bovaird Supply Co.
Bridgeport Machine Co.
Brown Tool Co., Inc.
Burns Tool Co.
Continental Supply Co.
Cushing, Tim, Tool & Supply Co.
Emsco Derrick & Equip. Co.
General Oil Tools Co.
Hinderliter Tool Co.
Hughes Tool Co.
International Supply Co.
Larkin & Co.
Leidecker Tool Co.
Lucey Mfg. Corp.
Murray Tool & Supply Co.
Oil Well Supply Co.
Reed Roller Bit Co.
Regan Forge & Engineering Co.
Spang & Co.
Star Drilling Machine Co.
U. S. Tool Co.

Drilling Engines (See Engines)—

Drilling Equipment—
Clark Brothers Co.
Hughes Tool Co.
O'Brien Steel Construction Co.
Oil Well Supply Co.
Parkersburg Rig & Reel Co.
Reed Roller Bit Co.
Star Drilling Machine Co.

Drilling Machines—
Leidecker Tool Co.
Oil Well Supply Co.
Star Drilling Machine Co.

Drilling Tools (See Drilling and Fishing Tools)—

Drilling Valves (See Valves)—

Drills—Portable Air—
Chicago Pneumatic Tool Co.

Drive Shoes—
Bartlesville Supply Co.
Larkin & Co.

Drop-Forged Wrenches (See Wrenches)—

Drops and Seats—
Norris Brothers, Inc.

Drums (See Barrels)—

Dynamos—
Westinghouse Electric & Mfg. Co.

E

Ejectors—
Penberthy Injector Co.

Electrical Equipment—
Fairbanks-Morse & Co.
Pyle National Co.
Wico Electric Co.

Electrical Apparatus (See Apparatus—Electric)—

Electric Drilling Equipment—
Lucey Mfg. Corp.
Westinghouse Electric & Mfg. Co.

Electric Steel Castings (See Castings—Electric—Steel)—

Elevators—Casing and Tubing—
Bovaird Supply Co.
Bridgeport Machine Co.
Dunn Mfg. Co.
Lucey Mfg. Corp.
Oil Well Supply Co.
Wilson Oil Tools Corp.

Elevators—Rod—
R. & A. Specialty Co.
D. & B. Pump & Supply Co.
Dunn Mfg. Co.

Enamels—
Arco Company, The.
Detroit Graphite Co.
Sherwin-Williams Co.

Engineers—Consulting and Contracting—
Brooks Engineering Corp.
Hope Engineering & Supply Co.
Kellogg, M. W., Co.
McKee, Arthur G., & Co.
National Petroleum Engineering Corp.
Power Specialty Co.
Westcott & Greis.
Widdell Engineering Co.

Engineers—Fire Protection—
Brooks Engineering Corp.
Foamite-Childs Corp.

Engineers—Oil Buildings—
Austin Co.
International Derrick & Equipment Co.

Engineers—Oil Mining—
Ranney Oil Mining Co.

Engineers—Oil Treating—
Barnickel, Wm. S., & Co.
National Gas Products Co.

Engines—Crude Oil—
Continental Supply Co.
Western Machinery Co.

Engines—Diesel—
Bessemer Gas Engine Co.
Busch-Sulzer Bros. Diesel Engine Co.
Foos Gas Engine Co.
McIntosh & Seymour Corp.
Western Machinery Co.
Worthington Pump & Machinery Corp.

Engines—Drilling—
Ajax Iron Works.
Bessemer Gas Engine Co.
Bovaird & Seyfang Mfg. Co.
Brownell Co., The.
Buda Co.
Buffalo Gasolene Motor Co.
Clark Bros. Co.
Climax Engineering Co.
Franklin Valveless Engine Co.
Hercules Motor Corp.
Pattin Bros. Co.
Power Mfg. Co.
Republic Supply Co.
Titusville Iron Works Co.

Engines—Gas—
Bessemer Gas Engine Co.
Bruce-MacBeth Engine Co.
Buda Co.
Buffalo Gasolene Motor Co.
Chicago Pneumatic Tool Co.
Clark Brothers Co.
Climax Engineering Co.
Continental Supply Co.
Cooper, C. & G., Co.
Emsco Derrick & Equipment Co.
Foos Gas Engine Co.
Franklin Valveless Engine Co.
Frick-Reid Supply Co.
Hope Engineering & Supply Co.
Ingersoll-Rand Co.
International Supply Co.
Jones, S. M., Co.
Marion Mch., Fdy. & Supply Co.
Miller Improved Gas Engine Co.
National Supply Co.
National Transit Pump & Machine Co.
Oil Well Supply Co.
Pattin Bros. Co.
Reid, Joseph, Gas Engine Co.
Titusville Iron Works Co.
Waukesha Motor Co.
Western Machinery Co.

Engines—Gasoline—
Buda Co.
Buffalo Gasolene Motor Co.
Continental Motors Corp.
Fairbanks-Morse & Co.
Hercules Motor Corp.
International Harvester Co. of America.
Waukesha Motor Co.
Western Machinery Co.

Engines—Oil—
Bessemer Gas Engine Co.
De La Vergne Machine Co.
Fairbanks-More & Co.
Franklin Valveless Engine Co.
Ingersoll-Rand Co.
International Harvester Co. of America.
McIntosh & Seymour Corp.
National Supply Co.
Oil Well Supply Co.
Power Mfg. Co.
Reid, Joseph, Gas Engine Co.
Western Machinery Co.

Engines—Semi-Diesel, Oil—
Chicago Pneumatic Tool Co.

Engines—Steam—
Ajax Iron Works.
Frick-Reid Supply Co.
Lucey Mfg. Corp.
National Supply Co.
Oil Well Supply Co.

Evaporators—
Newton Process Mfg. Co.
Ross Heater & Mfg. Co., Inc.

Extinguishers—Fire—
Foamite-Childs Corp.

F

Fabricators for Gasoline Plants and Refineries—
National Gas Products Co.
Stearns-Roger Mfg. Co.

Filters—Oil—
Burt Mfg. Co.

Fishing Tools (See Drilling and Fishing Tools)—

Fittings—Dropped Forged Steel—
Vogt, Henry, Machine Co.

Fittings—Forged Steel—
Central Forging Co.

Fittings—Malleable & Cast Iron—
Bovaird Supply Co.
Crane Co.
Frick-Reid Supply Co.
Walworth Co.

Fittings—Pipe—
Dayton Pipe Coupling Co.
Dresser, S. R., Mfg. Co.
Gaso Pump & Burner Mfg. Co.
Jarecki Mfg. Co.
Kellogg, M. W., Co.
Kennedy Valve Mfg. Co.
Metric Metal Works.
Oil Well Supply Co.
Reading Steel Casting Co.
Republic Supply Co.
United Iron Works, Inc.
Victaulic Co. of America.
Walworth Co.

Fittings—Steel—
Dayton Pipe Coupling Co.
Kerotest Mfg. Co.
Ohio Steel Foundry Co.
Walworth Co.

Flanges—Brass, Iron and Steel—
Jefferson Union Co.
Metric Metal Works.
Walworth Co.

Flange Unions—
Dart, E. M., Mfg. Co.
Gaso Pump & Burner Mfg. Co.
Wheatley Bros. Machine Works.

Flashlights—
National Carbon Co.

Floating Roofs and Decks—
Chicago Bridge & Iron Works.

Floodlights—
Pyle-National Co.

Forging Billets—
Andrews Steel Co.
Harrisburg Pipe & Pipe Bending Co.
Heppenstall Forge & Knife Co.

Forgings—
Champion Machine & Forging Co.

Fuel Oil (See Oil—Fuel)—

Fullers Earth—
Sinclair Refining Co.

G

Gas Holders—
Chicago Bridge & Iron Works.

Gaskets—
Garlock Packing Co.
McCord Radiator & Mfg. Co.

Gaskets—Fibre—
Durabla Mfg. Co.

Gas Masks & Safety Appliances—
Mine Safety Appliance Co.

Gasoline—
Crown Central Petroleum Co.
Empire Refineries, Inc.
Gulf Refining Co.
Magnolia Petroleum Co.
Pure Oil Co.
Sinclair Refining Co.
Skelly Oil Co.

Gasoline—Natural—
Chestnut & Smith Corp.
National Gas Products Co.
Skelly Oil Co.
Warren Petroleum Co.

Gasoline Plant Equipment—
Bessemer Gas Engine Co.
Clark Brothers Co.
Kellogg, M. W., Co.
McKee, Arthur G., & Co.
National Gas Products Co.
Newton Process Mfg. Co.
Ross Heater & Mfg. Co., Inc.
Widdell Engineering Co.

Gas Regulating Casinghead—
Davis, G. M., Regulator Co.
National Gas Products Co.

Gas Scrubbers—
National Gas Products Co.
Newton Process Mfg. Co.

Gauge Glass—High Pressure—
Durabla Mfg. Co.

Gauge Poles—
Marsh Gauge Pole Co.
Missouri Woodworking Co.

Gauges—Automatic Tank—
Brooks Engineering Co.

Gauges—Draft—
Brown Instrument Co.

Gauges—Oil—
Penberthy Injector Co.

Gauges—Pressure and Vacuum—
Bristol Co.
Brown Instrument Co.
Equitable Meter & Mfg. Co.
Metric Metal Works.

Gauges—Test—
Equitable Meter & Mfg. Co.
Metric Metal Works.

Gear Driven Pumps (See Pumps)

Gears—Cut—
Nuttall, R. D., & Co.

Gears—Reduction—
Emsco Derrick & Equipment Co.
Nuttall, R. D., & Co.

Gears—Reverse—
Emsco Derrick & Equipment Co.

Generators—
Westinghouse Electric & Mfg. Co.

Generators—Acetylene—
Oxweld Acteylene Co.

Generators—Turbine—
Moon Manufacturing Co.
Pyle-National Co.
Westinghouse Electric & Mfg. Co.

Glassware—Chemical for Laboratory Use—
Illinois Glass Co.

Governors—
Equitable Meter & Mfg. Co.
Gardner Governor Co.

Governors—Boiler Feed—
Chaplin-Fulton Mfg. Co.
Fisher Governor Co.

Grating—Steel—
Blaw-Knox Co.

Grey Iron Castings (See Castings)

H

Hammers—Chipping and Caulking Pneumatic—
Chicago Pneumatic Tool Co.

Hammers—Riveting Pneumatic—
Chicago Pneumatic Tool Co.

Hangers—Iron and Steel—
Continental Supply Co.
Dodge Mfg. Corp.

Hangers—Tubing—
Hercules Tool Co.

Hatchets—Gauges and Thief—
Oil Conservation Engineering Co.

Heat Exchangers—
Carbondale Machine Co.
Griscom-Russell Co.
Hope Engineering & Supply Co.
National Gas Products Co.
Newton Process Mfg. Co.
Ross Heater & Mfg. Co.
Southwestern Engineering Co., Inc.
Southwestern Engineering Corp.

Heat Interchangers—Fluid—
Braun, C. F., & Co.
Ross Heater & Mfg. Co., Inc.

Hoists—Pneumatic, Geared and Universal—
Chisholm-Moore Mfg. Co.
Yale & Towne Mfg. Co.

Hoists—Portable—
Chisholm-Moore Mfg. Co.
Ford Chain Block Co.
Sullivan Machinery Co.
Wright Mfg. Co.
Yale & Towne Mfg. Co.

Hooks for Rods and Tubing—
B. & A. Specialty Co.
Dunn Mfg. Co.

Hose—
Fenwick-Reddaway Mfg. Co.

Hose—Drillers—
Goodrich, B. F., Rubber Co.
United States Rubber Co.

Hose—Oil Suction and Discharge
Goodrich, B. F., Rubber Co.
United States Rubber Co.

Hose—Rubber—
Goodyear Tire & Rubber Co.
United States Rubber Co.

Hypochlorite of Lime—
Mathieson Alkali Works, Inc.

I

Injectors—
Penberthy Injector Co.

Inspectors—Pipe—
Hunt, Robert W., Co.

Insulation Materials—
Celite Products Co.
General Insulating & Mfg. Co.
Johns-Manville, Inc.

Insurance—Fire—
Oil Insurance Association.

Insurance—Tornado—
Oil Insurance Association.

Iron—Ingot—
American Rolling Mill Co.

J

Jacks—Hydraulic—
Bridgeport Machine Co.

Jacks—Lifting—
Templeton, Kenly & Co., Ltd.

Jacks—Pumping—
American Mfg. Co. of Texas.
American Wells Works.
Bessemer Gas Engine Co.
Braden Co.
Frick-Reid Supply Co.
Jones, S. M., Co.
Kansas City Hay Press Co.
Norris, W. C.
Spang & Co.

Jars—
Arbon, Paul, & Co.
Bridgeport Machine Co.
Spang & Co.

Jar Steel—
Andrews Steel Co.
Heppenstall Forge & Knife Co.

K

Kerosene—
Empire Refineries, Inc.
Gulf Refining Co.
Magnolia Petroleum Co.
Pure Oil Co.

L

Lacquers—
Arco Company, The.
Sherwin-Williams Co.

Lanterns—Electric—
Delta Electric Co.

Lead and Mixed Metal Products—
Eagle-Picher Lead Co.
National Lead Co.

Lead in Oil—
Eagle-Picher Lead Co.
National Lead Co.

Lead Wool and Containers—
Eagle-Picher Lead Co.

Lighting Equipment—
Pyle-National Co.
Westinghouse Electric & Mfg. Co.

Litharge—
Eagle-Picher Lead Co.
National Lead Co.

Loaders—Trucks—
Barber-Greene Co.

Long Distance Telephone—
American Telephone & Telegraph Co.

Lubricating Devices—
McCord Radiator & Mfg. Co.

Lubrication—
Ajax Iron Works.
Lunkenheimer Co.

Lubricators—Force Feed—
Hills-McCanna Co.
McCord Radiator & Mfg. Co.
Manzel Brothers Co.

M

Machine Tools—
Ryerson, Jos. T., & Sons, Inc.

Manholes—Tank—
Brooks Engineering Corp.

Manifolds—
Reid, Joseph, Gas Engine Co.

Meters—Gas—
Equitable Meter & Mfg. Co.
Foxboro Co., Inc.
Metric Metal Works.
Pittsburgh Meter Co.
Roots, P. H. & F. M., Co.
Westcott & Greis.

Meters—Electric—
Brown Instrument Co.

Meters—Gasoline—
Pittsburgh Meter Co.

Meters—Oil—
Pittsburgh Meter Co.

Molded Goods—Rubber—
Goodyear Tire & Rubber Co.

Motors—Electric—
Fairbanks-Morse & Co.
Westinghouse Electric & Mfg. Co.

Motors—Gasolino (See Engines—Gasoline)—

N

Naphtha—
Pure Oil Co.

Natural Gasoline (See Gasoline—Natural)—

Natural Gasoline Plant Equipment—
Campbell, J. A.
Cooper, C. & G., Co.
Griscom-Russell Co.
National Gas Products Co.
Roots, P. H. & F. M., Co.
Ross Heater & Mfg. Co., Inc.
Smith Separator Co.
Westcott & Greis.

Nitrogen—
Linde Air Products Co.

Nozzles—Spray—
Power Plant Equipment Co.

O

Oil and Gas Pipe Line Construction—
Hope Engineering & Supply Co.

Oil Burners (See Burners—Oil)—

Oil Field Equipment—
Baker Casing Shoe Co.
Bridgeport Machine Co.
Gaso Pump & Burner Mfg. Co.
International Derrick & Equipment Co.
Iron King Mfg. Co.
Kaw Steel Construction Co.
National Supply Co.
Oil Well Supply Co.
Parkersburg Machine Co.
Parkersburg Rig & Reel Co.
Reed Roller Bit Co.
Regan Forge & Engineering Co.
Reid, Joseph, Gas Engine Co.
Republic Supply Co.
Shiplex Equipment Co.
Trumble Gas Trap Co.

Oil—Fuel—
Crown Central Petroleum Corp.
Empire Refineries, Inc.
Gulf Refining Co.
Magnolia Petroleum Co.
Pure Oil Co.
Sinclair Refining Co.
Texas Company, The.

Oil—Gas—
Crown Central Petroleum Corp.
Gulf Refining Co.
Pure Oil Co.
Sinclair Refining Co.
Texas Company, The.

Oil—Lubricating—
Barnsdall Refining Co.
Crown Central Petroleum Corp.
Empire Refineries, Inc.
Gulf Refining Co.
Humble Oil & Refining Co.
Magnolia Petroleum Co.
Pure Oil Co.
Sinclair Refining Co.
Skelly Oil Co.
Texas Company, The.

Oil—Tractor—
Barnsdall Refining Co.
Gulf Refining Co.
Pure Oil Co.
Skelly Oil Co.

Oiling Devices—
Lunkenheimer Co.

Oil Meters (See Meters)—

Oil Piping Equipment (See Fittings)—

Oil Reclaiming Process—
Barnickel, Wm. S., & Co.
Houston Pump & Supply Co.

Oil Well Cementing—
Halliburton Oil Well Cementing Co.

Oil Well Tools—
D. & B. Pump & Supply Co.
Hinderliter Tool Co.
Reed Roller Bit Co.
Titusville Forge Co.
U. S. Tool Co.

Over Shots—
Reed Roller Bit Co.
Regan Forge & Engineering Co.

Oxygen—
Linde Air Products Co.

P

Packer Release—
Acme Fishing Tool Co.

Packers—
Goodyear Tire & Rubber Co.
Guiberson Corp.
Larkin & Co.
Layne & Bowler Co.
Meier, E. C., Lubricating Co.
Oil Well Supply Co.
Regan Forge & Engineering Co.
Spang & Co.
United States Rubber Co.

Packing—
Crane Packing Co.
Durabla Mfg. Co.
Garlock Packing Co.
Goodrich, B. F., Rubber Co.
Imperial Belting Co.
Johns-Manville, Inc.

Packing—Metallic—
Crane Packing Co.

Paint Guns—
Binks Spray Equipment Co.

Painting Equipment—Mechanical
Matthews, W. N., Corp.

Paints—
Aluminum Co. of America.
American Asphalt Paint Co.
Arco Company, The.
Cook Paint & Varnish Co.
Detroit Graphite Co.
Dixon, Joseph, Crucible Co.
Du Pont de Nemours, E. I. & Co., Inc.
Eagle-Picher Lead Co.
Eclipse Paint & Mfg. Co.
Hill, Hubbell & Co.
National Lead Co.
Sherwin-Williams Co.
St. Louis Surfacer & Paint Co.

Pipe—Cast Iron—
Greenspon's Jos., Sons Iron & Steel Co.
International Supply Co.
U. S. Cast Iron Pipe & Fdy. Co.

Pipe—Lead Chemical and Antimonial—
Eagle-Picher Lead Co.
National Lead Co.

Pipe—Steel—
Central Tube Co.
Continental Supply Co.
Greenspon's Jos., Sons Iron & Steel Co.
Jarecki Mfg. Co.
Kellogg, M. W., Co.
Murray Tool & Supply Co.
National Supply Co.
National Tube Co.
Republic Iron & Steel Co.
Ryerson, Jos. T., & Sons, Inc.
South Chester Tube Co.
Spang Chalfant & Co., Inc.
Superior Tube Co.
Taubman Supply Corp.
Wheeling Steel Corp.

Pipe—Wrought Iron—
Byers, A. M., Co.
Frick-Reid Supply Co.
Greenspon's Jos., Sons Iron & Steel Co.
Oil Well Supply Co.
Reading Iron Co.
South Chester Tube Co.
Superior Tube Co.
Taubman Supply Corp.

Pipe and Nipple Threading Machines—
Bignall & Keeler Machine Works.
Cox & Sons Co., The
Landis Machine Co.
Ryerson, Jos. T., & Sons, Inc.

Pipe Clamps (See Clamps—Pipe)—

Pipe Grips—
Larkin & Co.

Pipe Headers—
National Tube Co.
Newton Process Mfg. Co.

Pipe Line Coatings—
Hill, Hubbell & Co.

Pipe Line Construction Tools—
National Transit Pump & Machine Co.

Pipe Line Equipment—
Gaso Pump & Burner Mfg. Co.
Wheatley Bros. Machine Works.

Pipe Screwing Machines—
Buckeye Traction Ditcher Co.

Pipe Straightening Machines—
W-K-M Co., Inc.

Pipe Suspension Device—
Stearns-Roger Mfg. Co.

Pipe Threaders—Power—
Williams Tool Corp.

Pipe Tools—
Armstrong Brothers Tool Co.
Nye Tool & Machine Works.
Ridge Tool Co.
Walworth Co.

Piping—Fabricated—
Midwest Piping & Supply Co.

Piping—Hard Rubber—
United States Rubber Co.

Piping—Steel & Iron—
Crane Co.
Greenspon's, Jos., Sons Iron & Steel Co.
Power Piping Co.

Pistons—
Guiberson Corp.
Heppenstall Forge & Knife Co.

Pistons—Expansion—
Wilson Oil Tools Corp.

Pistons—Slush Pump—
Guiberson Corp.

Plugs—Bottom Water—
Guiberson Corp.

Pre-Heaters—
National Gas Products Co.
Newton Process Mfg. Co.
Ross Heater & Mfg. Co., Inc.

Preservatives—Asphalt—
American Asphalt Paint Co.

Pulleys—Wood, Iron and Steel—
Continental Supply Co.
Dodge Mfg. Co.

Pulling Machines—
Iron King Mfg. Co.
National Supply Co.
Safety Pulling Machine Co.

Pumpers—Long Stroke—
Farley Machine Co.

Pumping and Pulling Motors—Electric—
Westinghouse Electric & Mfg. Co.

Pumping Equipment—
American Well Works.
Axelson Machine Co.
Byron Jackson Pump Mfg. Co., Inc.
D & B Pump & Supply Co.
Farley Machine Co.
Goulds Pumps, Inc.
Jones, S. M., Co.
Myers, F. E., & Bros. Co.
Northrup Equipment Co.
Oil Well Supply Co.
Prescott Co.
Ratigan, J. P., Co.
Waukesha Motor Co.

Pumping Gear Units—
Nuttall, R. D., & Co.

Pumping Powers—
Bessemer Gas Engine Co.
Buda Co.
Frick-Reid Supply Co.
Jones, S. M., Co.
Kansas City Hay Press Co.
Marion Mch., Fdy. & Supply Co.
National Supply Co.
Oil Well Supply Co.
Pattin Bros. Co.
Reid, Joseph, Gas Engine Co.
Spence Machine Co.
Titusville Iron Works Co.

Pumps—Boiler Feed—
Ajax Iron Works.
Byron Jackson Pump Mfg. Co., Inc.
Fairbanks-Morse & Co.
Gardner Governor Co.
Goulds Pumps, Inc.
Oil Well Supply Co.
Smith Separator Co.

Pumps—Centrifugal—
American Well Works.
Byron Jackson Pump Mfg. Co. Inc.
Fairbanks-Morse & Co.
Goulds Pumps, Inc.
Smith Separator Co.
Worthington Pump & Machinery Corp.

Pumps—Direct Driven—
Bessemer Gas Engine Co.
Smith Separator Co.

Pumps—Electric—
Prescott Co.
Smith Separator Co.

Pumps—Fuel Oil Service—
Blackmer Pump Co.
Goulds Pumps, Inc.
Northern Fire Apparatus Co.
Smith Separator Co.

Pumps—Fuel Oil Transfer—
Blackmer Pump Co.
Byron Jackson Pump Mfg. Co. Inc.

Pumps—Gasoline and Oil for Filling Stations—
Gilbert & Barker Mfg. Co.

Pumps—Gear Driven—
Gaso Pump & Burner Mfg. Co.
Lucey Mfg. Corp.
Prescott Co.
Smith Separator Co.

Pumps—Hot Oil—
Blackmer Pump Co.
Byron Jackson Pump Mfg. Co., Inc.
Goulds Pumps, Inc.
Smith Separator Co.

Pumps—Pipe Line—
Byron Jackson Pump Mfg. Co., Inc.
Frick-Reid Supply Co.
Gardner Governor Co.
Gaso Pump & Burner Mfg. Co.
Goulds Pumps, Inc.
National Transit Pump & Machine Co.
Prescott Co.
Wheatley Bros. Machine Works
Worthington Pump & Machinery Corp.

Pumps—Portable—
Gaso Pump & Burner Mfg. Co.

Pumps—Power—
Fairbanks-Morse & Co.
Gardner Governor Co.
Gaso Pump & Burner Mfg. Co.
Goulds Pumps, Inc.
Myers, F. E., Bro. & Co.
National Transit Pump & Machine Co.
Prescott Co.
Smith Separator Co.
Waukesha Motor Co.

Pumps—Refinery—
Blackmer Pump Co.
Byron Jackson Pump Mfg. Co., Inc.
Gardner Governor Co.
Gaso Pump & Burner Mfg. Co.
Goulds Pumps, Inc.
National Transit Pump & Machine Co.
Northern Fire Apparatus Co.
Smith Separator Co.

Pumps—Rotary—
Blackmer Pump Co.
Goulds Pumps, Inc.
Northern Fire Apparatus Co.
Roots, P. H. & F. M., Co.

Pumps—Sand—
Bridgeport Machine Co.
Larkin & Co.
Smith Separator Co.

Pumps—Slush—
Gardner Governor Co.

Pumps—Steam—
Fairbanks-Morse Co.
Frick-Reid Supply Co.
Gardner Governor Co.
Gaso Pump & Burner Mfg. Co.
Lucey Mfg. Corp.
National Transit Pump & Machine Co.
Oil Well Supply Co.
Prescott Co.
Smith Separator Co.

Pumps—Suction—
Gaso Pump & Burner Mfg. Co.

Pumps—Vacuum—
Bessemer Gas Engine Co.
Chicago Pneumatic Tool Co.
Clark Brothers Co.
Gaso Pump & Burner Mfg. Co.
Miller Improved Gas Engine Co.
Roots, P. H. & F. M., Co.
Ross Heater & Mfg. Co., Inc.
Smith Separator Co.

Pumps—Water—
American Well Works
Byron Jackson Pump Mfg. Co., Inc.
Gaso Pump & Burner Mfg. Co.
Goulds Pumps, Inc.
Northern Fire Apparatus Co.
Prescott Co.
Smith Separator Co.

Pyrometers—
Brown Instrument Co.
Republic Flow Meters Co.

R

Ratchet Pipe Cutters—
Toledo Pipe Threading Machine Co.

Ratchet Pipe Threaders—
Nye Tool & Machine Works.
Toledo Pipe Threading Machine Co.

Ratchet Reamers—
Nye Tool & Machine Works.

Ratchet Stocks and Dies—
Nye Tool & Machine Works.
Toledo Pipe Threading Machine Co.

Receiving Boxes—
Reid, Joseph, Gas Engine Co.

Recorders—Differential Pressure—
Equitable Meter & Mfg. Co.
Metric Metal Works.

Refinery Equipment—
American Radiator Co.
Blaw-Knox Co.
Braun, C. F., & Co.
Carbondale Machine Co.
Chicago Bridge & Iron Works
Cross Engineering Co.
Graver Corp.
Griscom-Russell Co.
Kellogg, M. W., Co.
McKee, Arthur G., & Co.
Newton Process Mfg. Co.
Petroleum Appliance Co.
Petroleum Iron Works Co.
Power Piping Co.
Power Specialty Co.
Reid, Joseph, Gas Engine Co.
Ross Heater & Mfg. Co., Inc.
Ross-Meehan Foundries
Smith, A. O., Corp.
Smith Separator Co.
Southwestern Engineering Co., Inc.
Southwestern Engineering Corp.
United Iron Works, Inc.
Universal Oil Products Co.
Vogt, Henry, Machine Co.
Walsh & Weidner Boiler Co.
Westcott & Greis.
Widdell Engineering Co.

Refractories—Furnace, Stills and Baffles—
Botfield Refractories Co.
National Gas Products Co.

Refrigerating Machinery—
Carbondale Machine Co.
United Iron Works, Inc.
Vogt, Henry, Machine Co.

Regulators—
Fisher Governor Co.
Gilfillan Machine Works
Smith Separator Co.

Regulators—Gas—
Chaplin-Fulton Mfg. Co.
Davis, G. M., Regulator Co.
Equitable Meter & Mfg. Co.
Fisher Governor Co.
Metric Metal Works
National Gas Products Co.
Smith Separator Co.

Rental Service—
Bridgeport Machine Co.

Reversible Clutches—
Bessemer Gas Engine Co.

Rig Irons—
International Supply Co.
Lucey Mfg. Corp.
National Supply Co.
Oil Well Supply Co.
Parkersburg Rig & Reel Co.

Rigs—Drilling, All Steel—
International Derrick & Equipment Co.
Moore, Lee C., & Co., Inc.

Rigs—Portable Drilling—
National Supply Co.
National Turnbuckle Derrick Co.
Star Drilling Machine Co.

Rod Guides—
Meier, E. C., Lubricating Co.

Rogs—Gauge—
Missouri Woodworking Co.

Rods—Polish—
Jones, S. M., Co.

Rods—Pull—
Axelson Machine Co.
Columbus Sucker Rod Co.
Jones, S. M., Co.
Sheffield Steel Corp.

Rods—Sucker—
Axelson Machine Co.
Columbus Sucker Rod Co.
D & B Pump & Supply Co.
Frick-Reid Supply Co.
Jones, S. M., Co.
National Supply Co.
Oil Well Supply Co.
Republic Supply Co.
Sheffield Steel Corp.

Rods—Valve—
Jones, S. M., Co.

Roofing—Asbestos—
Johns-Manville, Inc.

Roofing—Galvanized Iron—
American Rolling Mill Co.

Rope Socket Metal—
Eagle-Picher Lead Co.

Rope—Manila—
Ajax Rope Co., Inc.
Bovaird Supply Co.
Republic Supply Co.

Rope—Wire—
Ajax Rope Co., Inc.
Bovaird Supply Co.
Bridgeport Machine Co.
Broderick & Bascom Rope Co.
International Supply Co.
Jarecki Mfg. Co.
Wickwire-Spencer Steel Corp.
Leschen, A., & Sons, Rope Co.
Williamsport Wire Rope Co.

Rotary Bit Steel—
Andrews Steel Co.
Heppenstall Forge & Knife Co.

Rotary Drilling Equipment—
Emsco Derrick & Equipment Co.
Frick-Reid Supply Co.
International Derrick & Equipment Co.
Link-Belt Co.
Lucey Mfg. Co.
National Supply Co.
Oil Well Supply Co.
Republic Supply Co.
Titusville Iron Works Co.

Rotary Lines (See Rope—Wire)—

Rotary Post—
Reed Roller Bit Co.

Rotary Tool Joints—
Bartlesville Supply Co.
Hughes Tool Co.

Rust Preventatives—
Dearborn Chemical Co.
Eagle-Picher Lead Co.

S

Sand Lines—Manila—
Ajax Rope Co., Inc.
Plymouth Cordage Co.

Sand Lines—Wire—
Ajax Rope Co., Inc.
Broderick & Bascom Rope Co.
Hazard Mfg. Co.
Wickwire-Spencer Steel Corp.

Screens—Oil Well—
Layne & Bowler Co.

Screens—Water Well—
Layne & Bowler Co.

Screws Temper—
Burns Tool Co.

Securities—Oil—
Pforzheimer, Carl H., & Co.

Separators—Centrifugal—
Miller, Max B., & Co.

Separators—Gas and Oil—
Smith Separator Co.

Separators—Steam—
Volz Engineering Equipment Co.

Sheet Lead—Chemical and Antimonial—
Eagle-Picher Lead Co.

Sheets—Corrugated, Black and Galvanized—
American Rolling Mill Co.
American Sheet & Tin Plate Co.
Ryerson, Jos. T., & Son, Inc.
United Alloy Steel Corp.

Sheets—Iron—
American Rolling Mill Co.

Sheets—Steel—
American Rolling Mill Co.
American Sheet & Tin Plate Co.
Sheffield Steel Corp.
United Alloy Steel Corp.

Shingles—Asbestos—
Johns-Manville, Inc.

Siding—Galvanized Iron—
American Rolling Mill Co.

Sleeves—
Dayton Pipe Coupling Co.
Dresser, S. R., Mfg. Co.

Sleeves—Split—
Dayton Pipe Coupling Co.
Dresser, S. R., Mfg. Co.

Smoke Stacks—
Donovan Boiler Works

Snuffers—Fire—
Simplex Equipment Co.

Sockets—
Acme Fishing Tool Co.
Bridgeport Machine Co.
Spang & Co.

Sockets—Sucker Rod—
Guiberson Corp.

Sockets—Swivel—
Arbon, Paul, & Co.

Sockets—Wire Rope—
Chicago Steel Foundry Co.

Soda Ash—
Mathieson Alkali Works, Inc.

Soda—Caustic—
Mathieson Alkali Works, Inc.

Solders—Bar and Wire—
Eagle-Picher Lead Co.
Hoyt Metal Co.

Spark Plugs—
Mosler Metal Products Corp.

Spears—
Acme Fishing Tool Co.
Brown Tool Co., Inc.

Sprockets—Power Transmission—
Ajax Iron Works
Chain Belt Co.

Stands—Vice—
Nye Tool & Machine Works

Steel—All Kinds—
Ryerson, Jos. T., & Son, Inc.

Steel—Alloy—
Central Steel Co.
Timken Roller Bearing Co.
United Alloy Steel Corp.

Steel—Bit—
Central Steel Co.
United Alloy Steel Corp.

Steel—Hot Rolled Strip—
Central Steel Co.

Steel—Special—
Andrews Steel Co.
Central Steel Co.
United Alloy Steel Corp.

Steel Fabricators—Structural—
Austin Co.
Braden Co.
Graver Corp.
International Derrick & Equipment Co.

Steel Pitmans—
International Derrick & Equipment Co.
Moore, Lee C., & Co., Inc.

Steel Plate Construction—
Chicago Bridge & Iron Works
Graver Corp.
Kaw Steel Construction Co.
Pennsylvania Engineering Works
Petroleum Iron Works Co.
Vogt, Henry, Machine Co.

Steel Wheels and Tog Rims—
International Derrick & Equipment Co.

Stills—
Blaw-Knox Co.
Graver Corp.
Kaw Steel Construction Co.
Kellogg, M. W., Co.
McKee, Arthur G., & Co.
Newton Process Mfg. Co.
Petroleum Iron Works Co.
Smith, A. O., Corp.
Vogt, Henry, Machine Co.
Widdell Engineering Co.

Stocks and Dies—
Borden Co.
Nye Tool & Machine Works
Toledo Pipe Threading Machine Co.

Stuffing Boxes—
Axelson Machine Co.
Kansas City Hay Press Co.

Sulphuric Acid—
Eagle-Picher Lead Co.

Superheaters—Steam—
Power Plant Equipment Co.

Swabs—
Arbon, Paul, & Co.
Burt Corporation
Guiberson Corp.
Simplex Equipment Co.

Swedge Nipples—
Dresser, S. R., Mfg. Co.
Harrisburg Pipe & Pipe Bending Co.

Swing Line Equipment—
Brooks Engineering Corp.

Swivels—
Layne & Bowler Co.
Lucey Mfg. Corp.
Titusville Iron Works Co.

T

Tachometers—
Brown Instrument Co.

Tank Equipment—
Brooks Engineering Corp.
Oil Conservation Engineering Co.

Tanks—Bolted—
Butler Mfg. Co.
Columbian Steel Tank Co.
Maloney Tank Mfg. Co.
Parkersburg Rig & Reel Co.

Tanks—Bulk Station—
Butler Mfg. Co.
Graver Corp.

Tanks—Cylindrical—
Graver Corp.
Petroleum Iron Works Co.

Tanks—Elevated Steel—
Chicago Bridge & Iron Works
Graver Corp.

Tanks—Field Storage—
American Car & Foundry Co.
Donovan Boiler Works
Graver Corp.
Kaw Steel Construction Co.
Kewanee Boiler Co.
Maloney Tank Mfg. Co
Petroleum Iron Works Co.
Pittsburgh-Des Moines Steel Co.
Riter-Conley Co.
United Iron Works, Inc.

Tanks—Horizontal Storage—
Graver Corp.
Kaw Steel Construction Co.
Maloney Tank Mfg. Co.

Tanks—Run Down—
Chicago Bridge & Iron Works
Donovan Boiler Works
Graver Corp.
Kaw Steel Construction Co.
Newton Process Mfg. Co.

Tanks—Steel Storage—
Chicago Bridge & Iron Works

Tanks—Truck—
Butler Mfg. Co.
Columbian Steel Tank Co.
White Co.

Tanks—Underground—
Butler Mfg. Co.
Gilbert & Barker Mfg. Co.
Graver Corp.
Kewanee Boiler Co.
Pittsburgh-Des Moines Steel Co.

Tanks—Welded—
Chicago Bridge & Iron Works
Graver Corp.
Pennsylvania Engineering Works

Taper Taps—
Hughes Tool Co.

Tapes—Measuring for Oil Gauging—
Lufkin Rule Co.
States Engineering Co.

Thermometers—Indicating and Recording—
American Shaeffer & Budenberg Corp.
Bristol Co.
Brown Instrument Co.

Thermometers—Resistance—
Brown Instrument Co.

Threading Machines—
Bignall & Keeler Machine Wks.
Cox & Sons Sc., The
Landis Machine Co.

Thread Protectors—
Spang & Co.

Tires—Automobile—
Continental Supply Co.

Tires—Pneumatic & Solid—
Kelly-Springfield Tire Co

Tires—Truck—
Kelly-Springfield Tire Co.

Tongs—
Bridgeport Machine Co.
Wilson Oil Tools Corp.

Tongs—Back Up—
Williams, J. H., & Co.

Tongs—Break Out—
Reed Roller Bit Co.
Williams, J. H., & Co.

Tongs—Casing—
Dunn Mfg. Co.
Guiberson Corp.

Tongs—Chain Pipe—
Armstrong Bros. Tool Co.
Williams, J. H., & Co.

Tongs—Pipe—
National Transit Pump & Machine Co.

Tongs—Rotary—
Dunn Mfg. Co.

Tongs—Tool Joint—
Guiberson Corp.
Hughes Tool Co.
Reed Roller Bit Co.

Tongs—Tubing—
Dunn Mfg. Co.

Tool Chests—Pipe—
Nye Tool & Machine Works

Tool Joints—
Bridgeport Machine Co.
Federal Supply Co.
Hughes Tool Co.
Lucey Mfg. Corp.
Oil Well Supply Co.
Regan Forge & Engineering Co.

Torches—
Oxweld Acetylene Co.

Towers—
Graver Corp.

Tractors—
Cleveland Tractor Co.
International Harvester Co. of America.

Trailers—
Spencer Trailer Co.

Transmission Belt—Rubber—
Goodrich, B. F., Rubber Co.
United States Rubber Co.

Transmission Lining—
Stanley Belting Corp.

Traveling Block—
Lucey Mfg. Corp.
Regan Forge & Engineering Co.
Wright Mfg. Co.

Trenchers—Vertical Boom—
Barber-Greene Co.

Trucks—Motor—
Ford Motor Co.
General Motors Truck Co.
Graham Brothers
International Harvester Co. of America
White Co.

Tubes—Boiler, Charcoal Iron—
Byers, A. M., Co.
Reading Iron Co.

Tubes—Boiler Steel—
Continental Supply Co.
National Tube Co.
Ryerson, Jos. T., & Sons, Inc.

Tubing—
Babcock & Wilcox Tube Co.
Byers, A. M., Co.
Central Tube Co.
Continental Supply Co.
National Tube Co.
Pittsburgh Steel Products Co.
Reading Iron Co.
Republic Iron & Steel Co.
South Chester Tube Co.
Spang, Chalfant & Co., Inc.
Superior Tube Co.
Wheeling Steel Corp.

Tubing Catchers—
Dunn Mfg. Co.
Guiberson Corp.

Tubing Protectors (See Rod Guides)—

Tubular Goods—
Babcock & Wilcox Tube Co.
Central Tube Co.
Continental Supply Co.
Oil Well Supply Co.
Pittsburgh Steel Products Co.
Republic Iron & Steel Co.
Spang, Chalfant & Co., Inc.
Wheeling Steel Corp.

Tubular Goods—Wrought Iron—
Byers, A. M., Co.
Reading Iron Co.

Turbines for Lighting Equipment
Lucey Mfg. Corp.
Westinghouse Electric & Mfg. Co.

U

Underreamer Body Steel—
Andrews Steel Co.
Heppenstall Forge & Knife Co.

Underreamers—
Bridgeport Machine Co.
Brown Tool Co., Inc.
Guiberson Corp.
Wilson Oil Tools Corp.

Unions—
Central Forging Co.
Dart, E. M., Mfg. Co.
Jefferson Union Co.

V

Valuations—
American Appraisal Co.

Valves—Blow-Off—
Homestead Valve Mfg. Co.
Merco Nordstrom Valve Co

Valves—Brass & Bronze—
Homestead Valve Mfg. Co.
Lunkenheimer Co.
Reading Steel Casting Co.
Walworth Co.

Valves—Cast Steel—
Chapman Valve Mfg. Co.
Homestead Valve Mfg. Co.
Walworth Co.

Valves—Check—
Gaso Pump & Burner Mfg. Co.
Lunkenheimer Co.
Walworth Co.

Valves—Drop Forged Steel—
Edwards Valve & Mfg. Co.
Vogt, Henry, Machine Co.

Valves—Gate—High and Low Pressure—
Chapman Valve Mfg. Co.
Crane Co.
Darling Valve & Mfg. Co.
Kennedy Valve Mfg. Co.
Kerotest Mfg. Co.
Ludlow Valve Mfg. Co.
Lunkenheimer Co.
Murray Tool & Supply Co
Powell, Wm., Co.
Walworth Co.

Valves—Iron—
Chapman Valve Mfg. Co.
Lunkenheimer Co.
Merco Nordstrom Valve Co.
Reading Steel Casting Co.
Walworth Co.

Valves—Metal Pump—
Durabla Mfg. Co.

Valves—Pump—
United States Rubber Co.

Valves—Relief—Supersensitive—
Davis, G. M., Regulator Co.

Valves—Steel—
Chapman Valve Mfg. Co.
Edward Valve Mfg. Co.
Kerotest Mfg. Co.
Lunkenheimer Co.
Metric Metal Works
Powell, Wm., Co.
Reading Steel Casting Co.
Walworth Co.

Valves—Tank Vent—
Brooks Engineering Corp.
Oil Conservation Engineering Co.

Valves—Working Barrel—
Atlas Ball Co.
Axelson Machine Co.
D & B Pump & Supply Co.
Hough, Charles N., Mfg. Co.
Northrup Equipment Co.
Oil Well Supply Co.

Varnishes—
Arco Company, The
Detroit Graphite Co.
Sherwin-Williams Co.

Vises—Bench—
Nye Tool & Machine Works

Vises—Pipe—
Nye Tool & Machine Works

Vises—Post—
Nye Tool & Machine Works

W

Wagons—Truss Wheel—
Athey Truss Wheel Co.

Walking Beams—Steel—
Emsco Derrick & Equipment Co.
Moore, Lee C., & Co., Inc.

Water Cooling Systems—
Power Plant Equipment Co.

Water Softeners and Filters—
Butler Mfg. Co.
Graver Corp.

Wax—
Barnsdall Refining Co.
Gulf Refining Co.
Pure Oil Co.

Weight Indicators—
Hughes Tool Co.

Welding Accessories—Electric—
Wilson Welder & Metals Co.

Welding and Cutting Apparatus—
Oxweld Acetylene Co.

Welding Machines—Electric—
Wilson Welder & Metals Co.

Welding Supplies—
Oxweld Acetylene Co.

Welding Wire—
Frick-Reid Supply Co.
Oxweld Acetylene Co.
Wilson Welder & Metals Co.

Well Shooting—
Eastern Torpedo Co.
Kinley, M. M.
Zero Hour Torpedo Co.

Wheels—Pipe Cutter—
Nye Tool & Machine Works

Winches—
Braden Co.
Brooks Engineering Co.
Oil Conservation Engineering Co.

Wire Lines (See Cables—Steel)—

Wood Patterns and Models—
Gaso Pump & Burner Mfg. Co.

Working Barrels—
Axelson Machine Co.
D & B Pump & Supply Co.
D. & N. Specialty Co.
Franklin Valveless Engine Co.
Frick-Reid Supply Co.
Hough, Charles N., Mfg. Co.
McGregor Working Barrel Co.
Norris, W. C.
Northrup Equipment Co.
Oil Well Supply Co.

Wrenches—Closet Spuds—
Nye Tool & Machine Works

Wrenches—Drop Forged—
Williams, J. H., & Co.

Wrenches—Pipe—
Trimont Mfg. Co.
Walworth Co.

Wrenches—Ratchet—
Dresser, S. R., Mfg. Co.
Nye Tool & Machine Works

Z

Zinc Oxide—
Eagle-Picher Lead Co.

XUM

Oklahoma-Kansas and Eastern Pipeline Report

PIPELINE STATEMENT FOR JUNE
Oklahoma-Kansas

Runs

*Prairie Pipe Line Co. ...	3,564,000	128,800
Gulf Pipe Line Co.	1,185,886	39,530
Texas Pipe Line Co.	505,387	16,846
Magnolia Petroleum Co...	1,141,393	38,046
Cosden Pipe Line Co. ...	821,767	27,392
Empire Pipe Line Co.	724,409	24,147
*Sinclair Pipe Line Co...	1,692,000	56,400
*Other lines	7,080,000	236,000
Total June	17,014,842	567,161
Total May	17,864,437	576,281
Difference	849,595	9,120

Shipments

†Prairie Pipe Line Co.....	4,215,416	140,514
Gulf Pipe Line Co.	1,078,313	35,944
The Texas Pipe Line Co.	777,062	25,902
Magnolia Petroleum Co. .	1,223,754	40,792
Cosden Pipe Line Co.	798,600	26,620
Empire Pipe Line Co. ...	828,595	27,619
†Sinclair Pipe Line Co....	2,486,153	82,872
*Other lines	7,950,000	265,000
Total June	19,357,803	645,260
Total May	21,275,280	686,298
Difference	1,917,477	41,038

Stocks

*Prairie Oil & Gas Co.	27,750,000
*Prairie Pipe Line Co.	2,000,000
Gulf Pipe Line Co. and Gypsy Oil Co.	6,398,124
The Texas Company	2,921,098
Magnolia Petroleum Co.	4,533,898
Empire Pipe Line Co.	2,736,142
Cosden Pipe Line Co.	2,055,583
*Sinclair Pipe Line Co.	18,800,000
Carter Oil Co.	12,948,357
*Other lines	9,300,000
Total June	89,443,202
Total May	90,623,771
Difference	1,180,569

*Estimated. †Prairie Pipe Line shipments include also Texas crude oil and Sinclair shipments include also Texas and Wyoming crude oil.

Note:—Stocks do not include approximately 4,800,000 bbls. of crude oil held in storage on private tank farms and leases.

EASTERN PIPE LINES

Runs From Wells

In the following table will be found the regular receipts from wells by various pipe lines in New York, Pennsylvania, West Virginia, Ohio, Kentucky and Indiana for April and May:

	April, 1926	May, 1926
Nat. Transit	175,931.37	174,995.11
S. W. Pa. Pipe	89,773.16	91,188.06
Eureka P. L.	372,871.02	370,755.39
Buckeye P. L. (Macksburg) . ..	304,514.55	294,855.09
Buckeye P. L. (Cleveland)	12,060.87	11,845.40
Buckeye P. L. (Lima, etc.)	127,204.85	133,401.39
Indiana P. L.	9,095.76	10,520.15
Cumberland P. L. .	273,842.36	268,123.06
N. Y. Transit	20,181.07	19,552.93
Tidewater P. L. ...	160,027.79	169,613.39
Pure Oil	171,766.80	172,006.54
Emery P. L.	48,703.74	49,842.97
Indian Ref.	93,143.14	97,979.63
Paragon Dev.	24,722.50	23,308.37
Pittsburgh P. L. ...	6,732.43	.....
Total 1,890,573.41		1,877,987.48
Daily average ...	63,019.11	60,580.24

Note: Indian Refining Co. also reported other receipts of 283,329.87 bbls. Paragon Refining Co. had other receipts of 140,751.80 bbls. Paragon Development had other receipts of 2,113.44 bbls. Pure Oil had other receipts of 59,553.74 bbls.

Petroleum Deliveries

The following tables exhibit the shipments or regular deliveries of various pipe lines in New York, Pennsylvania, West Virginia, Ohio, Kentucky and Indiana for April and May:

	April, 1926	May, 1926
Nat. Transit	314,763.21	345,085.14
S. W. Pa. P. L. ...	409,564.75	393,148.52
Eureka P. L.	163,392.74	192,968.03
Buckeye P. L. (Macksburg) . ..	94,254.91	114,603.45
Buckeye P. L. (Cleveland)	1,162.42	969.91
Buckeye P. L. (Lima, etc.)	823,641.06	910,244.94
Indiana P. L.	963,616.70	996,006.17
Cumberland P. L. ..	162,112.44	144,932.35
N. Y. Transit	668,407.25	690,213.42
Northern Pipe	133,960.98	161,237.60
Tidewater P. L. ...	93,030.34	159,830.90
Pure Oil	205,777.75	244,274.44
Emery P. L.	45,829.05	49,935.36
Paragon Ref.	170,282.16	140,751.80
Indian Ref.	288,296.97	419,340.15
Paragon Dev.	26,494.22	27,092.55
Pittsburgh P. L. ...	6,529.32	.....
Total 4,571,126.27		4,990,634.73
Daily average ...	152,370.87	154,636.60

Gross Stocks

The gross stocks held by various pipe lines in the oil producing sections of New York, Pennsylvania, West Virginia, Ohio, Indiana and Kentucky, at the close of April and May, were as follows:

	April, 1926	May, 1926
Nat. Transit 1,069,233.29		1,062,711.06
S. W. Pa. P. L.	688,704.11	692,119.25
Eureka P. L. 1,821,601.25		1,489,308.65
Buckeye P. L. (Macksburg) . ..	417,370.13	454,767.17
Buckeye P. L. (Cleveland)	73,536.91	80,869.73
Buckeye P. L. (Lima, etc.)	2,369,543.33	2,331,309.46
Indiana P. L.	544,568.51	566,868.09
Cumberland P. L. ..	599,474.86	598,818.89
Southern P. L.	481,210.52	447,896.85
N. Y. Transit	695,608.61	735,622.34
Northern P. L.	436,138.52	442,189.21
Pure Oil	460,634.48	450,527.08
Emery P. L.	34,514.24	35,299.99
Paragon Ref.	72,985.28	45,985.57
Indian Ref.	231,194.41	193,356.41
Paragon Dev.	4,918.23	4,107.65
Pittsburgh P. L. ..	4,614.59	.....
Total 9,805,851.27		9,531,757.40
Decrease	*267,558.84	274,093.87

*Increase.

Grades of Oil

The following table shows the amount of the different grades of oil held by the eastern pipe lines at the close of April and May showing the gross stocks of the above fields:

	April, 1926	May, 1926
Pennsylvania 4,076,568.47		3,824,110.70
Lima	947,707.33	953,292.28
Kentucky 1,163,245.60		1,167,315.61
Mid-Continent 3,459,618.16		3,479,821.87
Illinois	158,711.71	107,216.94
Total 9,805,851.27		9,531,757.40

Daily Average Runs

The following table shows the daily average runs of the Pennsylvania, Lima and Kentucky oil fields for the past four years:

	1923	1924	1925	1926
January	75,790	62,638	56,831	55,630
February	71,092	62,023	60,606	60,394
March	76,592	68,721	60,575	61,644
April	75,614	71,058	63,062	63,019
May	77,365	63,942	59,217	60,580
June	77,593	63,230	61,270	.....
July	71,879	64,208	62,639	.....
August	76,910	59,942	59,686	.....
September	72,358	62,930	62,610	.....
October	76,256	64,976	60,995	.....
November	70,762	56,282	59,350	.....
December	69,271	55,814	57,974	.....

Daily Average Shipments

The following table gives daily average shipments from the Pennsylvania, Lima and other fields for the past four years:

	1923	1924	1925	1926
January	171,067	145,518	157,889	156,056
February	164,219	148,732	160,863	159,488
March	186,487	147,098	154,591	150,239
April	170,761	147,611	151,429	152,371
May	177,102	134,997	146,995	154,537
June	173,598	143,010	149,467	.....
July	168,330	124,187	161,338	.....
August	142,776	123,120	161,730	.....
September ...	137,266	127,325	156,719	.....
October	134,597	123,170	145,388	.....
November	131,426	124,400	143,582	.....
December	139,909	151,392	150,162	.....

Gross Stocks

In the following table will be found the gross stocks of the various lines of the Pennsylvania, Lima and Kentucky oil fields, including oil received from other lines, at the close of each month for the past three years:

	1924	1925	1926
January	12,907,202	11,353,276	9,859,170
February	11,844,068	11,192,924	9,579,354
March	10,906,752	11,158,297	9,438,292
April	10,922,742	11,062,082	9,806,851
May	11,335,309	11,207,562	9,531,757
June	11,544,204	11,093,796	.....
July	12,062,361	11,067,453	.....
August	12,221,678	10,974,481	.....
September	12,206,836	10,781,763	.....
October	12,664,061	11,086,850	.....
November	12,268,530	11,068,158	.....
December	11,583,680	10,458,445	.....

Franklin Pipe Line Co.

The following table exhibits the condition of the Franklin Pipe Line at the close of business for the months named and not counted in the stocks and averages reported above:

	Receipts	Shipmts.	Stocks
1926—			
May	2,814.99	5,719.90	10,264.13
June	3,052.75	1,221.83	12,095.05
July	2,639.34	3,174.10	11,550.29
August	3,216.97	1,577.99	13,189.27
September	2,929.99	5,352.05	10,767.21
October	2,869.75	1,499.34	12,137.62
November	2,759.66	2,671.32	12,283.40
December	2,661.87	3,441.67	11,503.60
1926—			
January	2,990.16	1,478.35	13,015.41
February	2,580.23	2,776.19	12,819.45
March	2,754.62	1,732.77	13,841.30
April	3,137.40	4,519.68	12,459.02
May	2,933.29	2,096.35	13,295.96

The Illinois Field

The following table gives the report of the Illinois Pipe Line Co. in Illinois:

Gross stocks June 1	2,839,930.90
Runs from wells	654,235.77
Other receipts	344,229.50
Regular deliveries	455,231.13
Other deliveries	418,247.09

The amount of Illinois oil run by the Tidewater Pipe Co. in May was 28,180.90 bbls. and deliveries were 43,225.78 bbls. Adding these figures to those of the Illinois Pipe Line Co. makes the runs and deliveries as follows:

1925—		
May	692,671.94	568,573.63
June	700,090.46	589,535.24
July	724,481.26	564,713.10
August	673,652.88	650,649.97
September	706,434.87	510,697.61
October	706,532.00	633,682.33
November	664,556.30	488,449.19
December	665,086.99	578,938.47
1926—		
January	665,243.62	516,083.76
February	632,611.99	506,310.51
March	753,300.74	524,625.95
April	610,957.04	487,604.00
May	682,416.67	498,456.90

The Tidewater Pipe Co., Ltd., also delivered in May 314,131.72 bbls. of Oklahoma oil.

AVERAGE DAILY RECEIPTS OF CALIFORNIA OIL AT ATLANTIC AND GULF PORTS

Average bbls. per day—	ATLANTIC PORTS: Baltimore	Boston	New York	Philadelphia	Others	Total	GULF COAST PORTS: New Orleans Galveston	Port Arthur Baton Rouge	Sabine Pass	Tampa	Total	Total All Ports
March	7,000	2,516	48,839	16,612	16,903	91,870	.....	.....	.....	.....	.....	91,870
April	19,033	5,133	28,333	13,400	22,867	88,767	.....	.....	4,700	.....	.....	93,467
May	27,065	7,903	15,387	13,452	17,742	81,549	.....	.....	4,032	.....	.....	85,571
June	24,533	11,000	22,800	33,467	16,167	107,967	.....	.....	.....	.....	.....	107,967

AVERAGE DAILY IMPORTS OF PETROLEUM AT PRINCIPAL UNITED STATES PORTS

Average bbls. per day—	ATLANTIC PORTS: Baltimore	Boston	New York	Philadelphia	Others	Total	GULF COAST PORTS: New Orleans Galveston	Port Arthur Baton Rouge	Sabine Pass	Tampa	Total	Total All Ports
March	28,387	15,935	81,742	16,290	34,258	176,612	19,355	44,097	7,096	5,294	75,842	252,454
April	15,200	14,000	76,833	10,633	39,333	156,000	19,200	24,900	2,000	4,433	50,533	206,533
May	12,387	12,258	75,516	11,645	21,548	133,355	12,710	45,226	1,936	5,677	65,549	198,904
June	15,800	10,800	87,300	6,500	21,267	141,667	25,300	42,267	6,567	3,900	78,033	219,700

GROSS PRODUCTION OF THE UNITED STATES FOR 12 MONTHS
(IN BARRELS)

		California	Oklahoma	Texas	Kansas	Arkansas	Louisiana	Rocky Mountains	Eastern Fields	Total
July:	Month	20,411,059	14,263,565	12,337,598	3,686,675	7,835,819	1,898,178	3,129,199	3,348,000	66,910,083
	Daily average	658,421	460,115	397,894	118,925	252,768	61,231	100,942	108,000	2,158,390
August:	Month	21,055,580	14,441,040	11,936,079	3,558,087	7,450,580	1,858,543	3,250,448	3,177,600	66,677,357
	Daily average	677,599	465,189	385,022	114,777	240,341	56,727	104,853	102,484	2,150,883
September:	Month	20,062,763	14,825,040	11,264,890	3,393,270	6,467,950	1,776,570	3,235,625	3,212,000	64,228,108
	Daily average	668,759	494,168	375,496	113,109	215,265	59,219	107,854	107,067	2,140,937
October:	Month	20,015,076	14,921,199	11,196,511	3,477,146	6,409,281	1,871,830	3,394,990	3,248,000	64,534,033
	Daily average	645,648	481,329	361,178	112,166	206,751	60,382	109,500	104,774	2,081,743
November:	Month	19,095,907	14,590,980	10,650,987	3,221,760	5,927,955	1,758,882	3,088,121	2,992,000	61,325,692
	Daily average	636,530	486,366	355,003	107,397	197,599	58,629	102,937	99,753	2,044,190
December:	Month	19,249,711	14,123,848	10,930,455	3,308,816	6,047,883	1,763,966	3,187,164	3,086,900	61,698,743
	Daily average	620,959	455,608	352,595	106,736	195,093	56,902	102,812	99,552	1,990,283
January:	Month	19,069,563	13,674,813	11,048,715	3,250,536	5,489,604	1,726,390	3,136,280	3,014,000	60,410,901
	Daily average	615,147	441,123	356,442	104,856	177,084	55,690	104,396	97,226	1,948,741
February:	Month	17,163,963	12,392,016	9,943,232	2,877,812	4,756,836	1,584,184	2,778,605	2,931,000	54,427,648
	Daily average	612,999	442,572	355,115	102,779	169,887	56,578	99,236	104,678	1,978,844
March:	Month	18,825,786	14,312,886	11,014,238	3,334,887	5,115,837	1,889,663	3,161,250	3,349,000	61,003,547
	Daily average	608,283	461,706	355,298	107,577	165,027	60,957	101,976	108,032	1,957,856
April:	Month	18,091,771	14,468,190	10,799,760	3,330,120	5,127,510	1,959,570	3,231,404	3,183,000	60,191,325
	Daily average	603,059	482,273	359,992	111,004	170,917	65,319	104,239	106,100	2,006,377
May:	Month	18,667,144	14,507,008	11,940,797	3,516,640	5,482,939	2,231,938	3,459,489	3,317,000	63,122,955
	Daily average	602,166	467,968	385,187	113,440	176,879	71,998	111,596	107,000	2,036,224
June:	Month	18,269,417	14,073,510	11,783,550	3,366,450	5,064,760	2,205,480	3,437,905	3,240,000	61,441,072
	Daily average	608,981	469,117	392,785	112,215	168,822	73,516	114,597	108,000	2,048,036
	Total 12 months	229,927,730	170,594,095	134,846,912	40,322,199	71,166,954	22,525,194	38,490,480	38,097,900	745,971,464
	Daily average	629,849	467,381	369,438	110,473	194,978	61,712	105,478	104,378	2,043,757

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| Total
All Ports |
|---|
| 91,870 |
| 93,467 |
| 85,571 |
| 107,967 |

| Total
11 Ports |
|---|
| 252,454 |
| 296,533 |
| 198,904 |
| 219,700 |

Total
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698,743
990,282
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XUM

XUM

SMOOTHNESS

SMOOTHNESS is a quality to look for in pump operation, not merely because it soothes the nerves [which is important enough] but mainly because smoothness is an external sign of internal efficiency. Smoothness means absence of friction. It indicates parts in correct relation to one another. It spells long life.

The next time you see a GASO pump in operation, note particularly the small amount of vibration compared to pumps of similar design. It is another reason why so many users who try GASOS once standardize on them for all time.

GASO PUMP & BURNER MFG. CO.
Tulsa, Oklahoma

STEAM PUMPS WITH LONG LIFE INBUILT

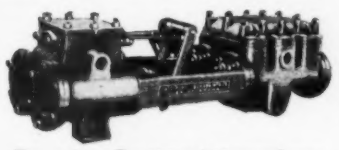

Figure 401—For 175 to 800 pound pressures; a widely used model with an inclination to do the same work as much more expensive types.

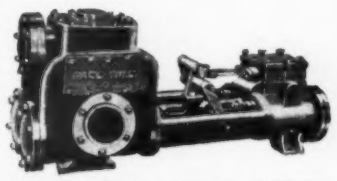

Figure 401-S—An adaptation of Figure 401. Especially suited to refinery uses or wherever else a large capacity, low pressure pump is required.

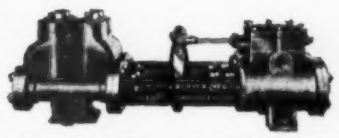

Figure 404—Valve Pot type for 500 to 800 pound pressures. Valve pots accessible from outside. Ideal for high pressure gasoline and acid work.

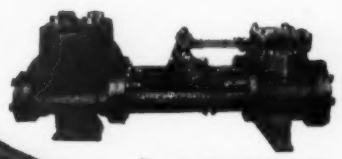

Figure 407—600 to 1,000 pound pressures. A sturdy, large capacity, high pressure steam pump, meeting a large variety of demands. Valve pot type.

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for every oil industry need

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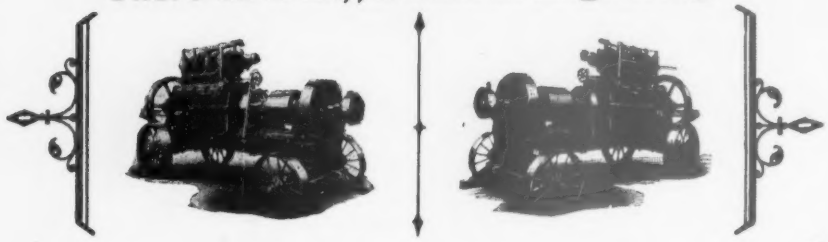

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